

APPENDIX A

PUBLIC MEETINGS NOTICE, AGENDA, SIGN-IN SHEETS AND HANDOUTS

***March 11, 2004
Public Meeting***

Press Release

Elkhart County Commissioners
Puterbaugh Creek – Heaton Lake Watershed Management Plan

Elkhart County Commissioners have received a \$60,000 Federal Fiscal Year 2002 205(j) Water Quality Planning Grant from the US Environmental Protection Agency for the development of a Watershed Management Plan for the Puterbaugh Creek – Heaton Lake Watershed.

A public meeting is scheduled for 7:00 PM on Thursday, March 11, 2004 at Eastwood Elementary School located at 53215 CR 15 North, Elkhart, Indiana. The purpose of the meeting is to inform the public regarding the Watershed Management Plan Project and invite public participation in the Watershed Planning process.

Questions concerning the meeting should be directed to Ms. Piper Tittle at Lawson-Fisher Associates (574) 234-3167 or Ms. Kristine Krueger at the Elkhart County Commissioners Office (574) 535-6746.

Welcome Guest.

Log



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eTruth > Local News

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Local News

will impact traffic east of the railroad tracks. Drivers will not be able to use Indiana Avenue from Tipton Street to Grand Avenue during the work.

Elkhart: Sign up open for St.

Vincent school

ELKHART -- St. Vincent de Paul School, 1114 S. Main St., announced that registration will be open to the public, beginning Tuesday.

St. Vincent offers a traditional Catholic education from preschool through sixth grade. Call 293-8451 for more information or to arrange a visit.

Muncie: Ball State art gallery open on Internet

MUNCIE -- A group of Ball State University students, including two local residents, has successfully merged art with the Internet by creating an interactive online art gallery.

"It's a new way to look at art online," said team leader Mark Miller, a telecommunications major from Goshen. "There are many still images that can be viewed online, some having audio. We wanted to create a richer experience, even going as far as allowing visitors to meet the artists themselves."

The Web site allows visitors to tour galleries and studios, select works by each artist and listen to interviews of artists and critics. Visitors can also view sculptures and "move around" them, virtually speaking, to see the pieces from many angles.

The students will unveil their gallery, available at www.absorbart.com, through Sunday at the Mitchell Place Gallery in Muncie.

Chad Yoder, a journalism and graphics major from Millersburg, also worked on the project.

Aurora, IL.: Now is the time to book

summer cruise

AURORA, IL. -- Although it's not even spring yet, it's not too early to plan a summer vacation according to AAA Travel.

Space is already tight for many popular European destinations. "If you're thinking of traveling overseas, stop thinking and start planning," said Alexandra Petropoulos, direct of AAA Travel.

In recent years, people have been hesitant to venture abroad, but many European tours and cruises are already sold out for 2004. This is quite a change from last year, when some Mediterranean cruises were canceled because there weren't enough passengers.

Petropoulos also suggested to book reservations for summer cruises in the Caribbean as soon as possible. These ships have only a limited number of spots available.

Disney World, always a top destination for families, is another place to consider planning for now, as hotels tend to fill up quickly.

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MEMORANDUM

March 18, 2004

TO: LFA Project File No. 200406.00

FROM: Adin M. McCann, P.E. *Amm*

RE: Elkhart County Commissioners
Section 205(j) Watershed Planning Grant
Puterbaugh Creek – Heaton Lake Watershed Management Plan
Public Information Meeting No. 1

The first public information meeting for the above referenced project was conducted at the Eastwood School on March 11, 2004. Copies of the agenda, sign-in sheet and sign-up sheet for the Stakeholder Committee are included with this memorandum.

The meeting began with a general overview and introduction by Ms. Kristine Krueger of Elkhart County. The writer and Mr. John Fisher made a Powerpoint Presentation covering information on watersheds, point source pollution, non-point source pollution, specific project objectives, tasks and schedule, as well as a general discussion on environmental regulatory programs and methods of improving water quality.

After completing the formal presentation, the audience was given an opportunity to pose any specific questions. The following items were discussed:

- One attendee suggested that it might be beneficial to modify the public notice in the newspaper to clarify the scope of the project and corresponding meeting. It was suggested that this might solicit more participation from land owners outside the Heaton Lake area. Due to the specific verbiage of the public notice, it was thought that the project was intended to only include the Heaton Lake area. Consequently, the majority of the meeting attendees were residents of the Heaton Lake area.
- There was also some general interest as to the types of water quality data that would be sampled and analyzed as a part of this project. One specific member of the audience knew that the County sampled in many areas on a consistent basis and wondered if this data might be beneficial to the project. Mr. Fisher explained that the project was being coordinated with the County Health Department and that the current water quality sampling database would be analyzed and incorporated into the project. Mr. Fisher continued the discussion by explaining that this project would also required obtaining additional water quality sampling data for additional areas within the watershed. The additional sampling data would include an extensive list of water quality parameters not currently contained in existing Elkhart County Health Department databases.



LFA Project File No. 200406.00

March 18, 2004

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- There were some concerns expressed by the residents regarding field work that might be performed in the areas near their homes. Mr. Fisher responded by stating that the majority of sampling would be conducted in the public right-of-ways, but that certain circumstances might require access to private properties. In these instances, the specific land owner(s) would be contacted to receive appropriate authorization. In response to additional concerns voiced over the collection of water quality sampling data, Mr. Fisher stated that all field work would be performed by Lawson-Fisher Associates (LFA) personnel. Although LFA might use student engineering interns to accomplish some of this work, the interns would typically be supervised by a full-time employee of LFA.
- The watershed maps (Puterbaugh Creek – Heaton Lake, Idealized Watershed) provided by LFA for display were generally well received. Many of the meeting participants requested additional copies be brought to future meetings.

AMM/bsa

Encls.

c:→Piper C. Tittle, P.E. w/Encls.



**Elkhart County Commissioners
205(j) Watershed Planning Grant**

Puterbaugh Creek – Heaton Lake Watershed Management Plan

March 11, 2004 at 7:00 P.M.

Agenda

1. Introduction
2. Water Quality Issues
 - *Watersheds*
 - *Non-Point Source Pollution*
 - *Point Source Pollution*
 - *IDEM/EPA 205(j) Grant*
3. Puterbaugh Creek – Heaton Lake Watershed Management Plan Project
 - *Objectives*
 - *Public Participation-Form Stakeholder Committee*
 - *Quarterly Meetings*
 - *Local Input*
 - *Planning Tasks*
 - *Schedule*
4. Conclusion
 - *Best Management Practices*
 - *Good Agricultural Practices*
 - *Regional Sewer Districts*
 - *Good Common Sense*
5. Discussion



Puterbaugh Creek – Heaton Lake Watershed Management Plan

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***Elkhart County Commissioners
Section 205(j) Watershed Planning Grant
Puterbaugh Creek – Heaton Lake Watershed***

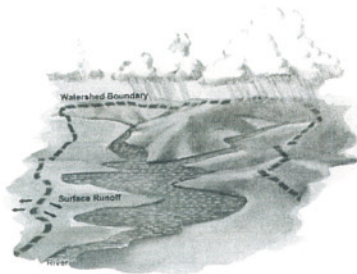
Kristine Krueger – Elkhart County
John Fisher, P.E. – Lawson-Fisher Associates P.C.
Piper Tittle, P.E. – Lawson-Fisher Associates P.C.
Adin McCann, P.E. – Lawson-Fisher Associates P.C.

Agenda

- Introduction
- Water Quality Issues
 - Watersheds
 - Point Source Pollution
 - Non-Point Source Pollution
 - Causes and Effects of Pollution
- Puterbaugh Creek-Heaton Lake Watershed Management Project
 - Objectives
 - Public Participation-Form Stakeholder Committee
 - Planning Tasks
 - Schedule
- Conclusions
 - Best Management Practices (BMPs)
 - Good Agricultural Practices
 - Regional Sewer Districts
 - Good Common Sense

What is a Watershed?

It's the area of land that catches rain and snow and drains or seeps into a marsh, stream, river, lake or groundwater.



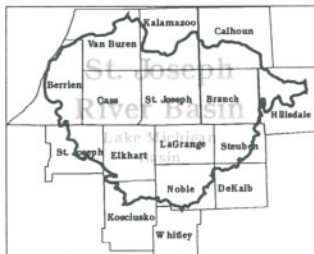
You're Sitting in a Watershed Right Now!

- No matter where you live, you live in a watershed.
- Homes, farms, ranches, forests, small towns, big cities and more can make up watersheds.
- Some cross county, state, and even international borders.
- Watersheds come in all shapes and sizes.
- Some are millions of square miles, others are just a few acres.
- Just as creeks drain into rivers, watersheds are nearly always part of a larger watershed.



St. Joseph River Watershed

USGS Cataloging Unit: 04050001



For More Information: <http://www.epa.gov/surf/>

Puterbaugh Creek -Heaton Lake Watershed

14-Digit Hydrologic Unit Code (HUC) = 04050001150040

Watershed Area = Approx. 17 sq. mi.

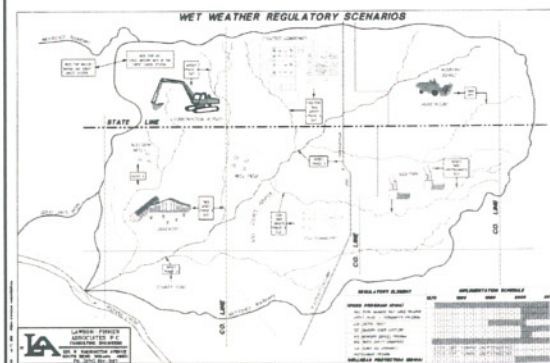


Water Quality Issues

Potential Sources of Pollution

- Point Sources
 - Storm Sewer Outfalls
 - Combined Sewer Overflows (CSOs)
 - Wet Weather Sanitary Sewer Overflows (SSOs)
- Nonpoint Sources
 - Excess fertilizers, herbicides, and insecticides from agricultural lands and residential areas
 - Oil, grease, and toxic chemicals from urban stormwater runoff and energy production
 - Sediment from improperly managed construction sites, crop and forest lands, and eroding streambanks
 - Salt from irrigation practices and acid drainage from abandoned mines
 - Bacteria and nutrients from livestock, pet wastes, and faulty septic systems

Integrating Wet Weather Discharges



Puterbaugh Creek - Heaton Lake Watershed Management Plan Project

What is a Section 205(j) Grant Project?

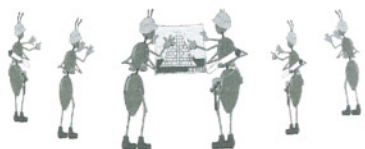
- Section 205 of the Federal Clean Water Act provides funding for water quality management planning
- Funds used to determine nature, extent, and causes of point and non-point source pollution problems and to develop plans to resolve these problems
- Increase involvement of environmental and civic organizations in watershed planning

Puterbaugh Creek - Heaton Lake Watershed Management Plan Project

Project Objectives

- Address water quality issues in the Puterbaugh Creek – Heaton Lake Watershed via the development of a Watershed Management Plan
 - Problematic unsewered area within Elkhart County
 - Inadequate septic systems with the potential for more problems due to future growth in the area
 - Poor soils exist in the Heaton Lake area
 - Predominant lot sizes are equal to or less than ½ acre & support both individual wells and septic systems
 - Future growth and development due to the CR 17 extension connecting the Indiana Toll Road with U.S. 12 in Michigan
 - Recreational activities – Ideal Beach

Watershed Planning



A *watershed management plan* serves as a blueprint to protect natural resources within the watershed, or improve natural resource elements identified as important for the future of the watershed

The Watershed Approach

- A *watershed approach* is a strategy for effectively protecting and restoring aquatic ecosystems and protecting human health.
- This strategy has as its premise that many water quality and ecosystem problems are best solved at the watershed level rather than at the individual waterbody or discharger level.

Watershed Planning

- Identifies where the watershed is in relation to other watersheds in the basin
- Identifies stakeholders within the watershed
- Identifies what the stakeholders believe is important about the watershed
- Identifies opportunities for water quality improvements
- Contains an inventory of elements that best characterize the watershed
- Prioritizes inventory
- Correlates best management practices to address identified concerns
- Sets goals
- Develops a way to educate and inform the public
- Develops an action plan to achieve goals

Watershed Management Plan

- Land Use
- Soils
- Hydrology
- Zoning
- Septic Permit Locations
- History
- Water Quality Monitoring Data
- Previous Studies and Reports
- Identify Critical Areas
- Develop Plan to Improve Water Quality

Public Participation-Form Stakeholder Committee

Why form a stakeholder committee?

- A need or problem has been identified
- A project has been identified that will benefit several groups/individuals
- Diversity enables the development of creative solutions
- Opportunity to enhance natural resource management

Public Participation-Form Stakeholder Committee

Key Components of the Stakeholder Committee

- Broad representation
 - All interests in the watershed are represented
- Local Knowledge
 - People who live and work in the watershed know how things function
- Common vision
 - Builds long-term support, and personal responsibility and commitment increase

Public Participation-Form Stakeholder Committee

Stakeholder Committee Focus

- Identify the community's concerns
- Develop a problem statement, vision statement, and mission statement
- Set measurable goals
- Achieve consensus
 - Members understand and are able to support it

Project Schedule

- Spring 2004
 - Gather existing watershed data
 - Start Public Meetings
 - Form steering committee
 - Quality Assurance Project Plan (QAPP)
- Summer/Fall 2004
 - Water Quality Sampling
- Dec. 2005 – Dec. 2006
 - Develop Watershed Management Plan

Conclusion

- Best Management Practices
- Good Agricultural Practices
- Regional Sewer Districts
- Good Common Sense

Questions? Comments?

General Discussion....

Thank You!

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525 West Washington Avenue
South Bend, IN 46601

***June 16, 2004
Public Meeting***

Press Release

Elkhart County Commissioners Puterbaugh Creek - Heaton Lake
Watershed Management Plan

Elkhart County Commissioners have received a \$60,000 Federal Fiscal Year 2002 205(j) Water Quality Planning Grant from the US Environmental Protection Agency for the development of a Watershed Management Plan for the Puterbaugh Creek - Heaton Lake Watershed. The Puterbaugh Creek - Heaton Lake Watershed encompasses an area of approximately 17 square miles. Its northern boundary extends into the State of Michigan and south to include the Heaton Lake and Puterbaugh Creek. This watershed encompasses nearly all of Osolo Township and the western portion of Washington Township.

A Joint Stakeholder Meeting is scheduled for 6:00 PM on Wednesday, June 16, 2004 at the Osolo Township Emergency Medical Services Building located at 25600 CR 4, Elkhart, Indiana. The purpose of the meeting is to inform the public about the Watershed Management Plan Project and invite participation in the Watershed Planning process.

Questions concerning this meeting should be directed to Mr. Adin McCann at Lawson-Fisher Associates (574) 234-3167 or Ms. Kristine Krueger at the Elkhart County Commissioners Office (574) 535-6746.

Welcome Guest.

Log



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Local News

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Local Digest

Nappanee: Pet store seeks change so it can sell lizards

Published: Wednesday, June 16, 2004 -- The Truth, A3
 Last updated: 6/15/2004 11:58:17 PM

NAPPANEE -- City council members are considering allowing sales of blue-tailed skinks, geckos and anoles at a new pet store, Fins and Feathers. The store requested the city change its existing ordinance, which prohibits the sales.

On Monday, city board of works members approved a recommendation to council members to say "yes" to the sales. City ordinance prohibits the sale of all three lizards. The city council will make the final decision on amending the ordinance.

Goshen: Decision delayed on Purl Street closing

GOSHEN -- A decision on a proposal to close Purl Street in front of the Goshen Public Library has been delayed until autumn so city officials can study traffic patterns when school reopens.

The Goshen Plan Commission postponed action at Tuesday's meeting, and the issue is not expected to return until October or November. City engineering staff suggested the delay because traffic counts would be skewed in the summer.

The proposal is to close Purl between Main and Fifth streets as part of the library's parking lot expansion to the north. Library director Andy Waters said the delay should not affect the schedule for the parking lot project, which officials have said wouldn't happen until next year.

A group of neighbors who oppose the proposal also attended Tuesday's meeting. Fifth Street resident Barb Hassan said afterward she thought it was good to get more information. She suggested city officials block Purl Street during some of the studies to judge the impact on traffic patterns.

Elkhart: Meeting tonight for Heaton Lake water issues

ELKHART -- Water issues in the Heaton Lake and Puterbaugh Creek area will be discussed during a public meeting tonight in Osolo Township.

Elkhart County obtained a \$60,000 grant to study and develop watershed management plans for the 17-square-mile area. The meeting will be at 6 p.m. in the township ambulance building, 25600 C.R. 4.

Questions about the project should be directed to Adin McCann of Lawson-Fisher Associates at 234-3167 or Kris Krueger of Elkhart County government at 535-6746.

Elkhart: Series addresses menopause-related issues

Today's News

- » [Bayer plant closing](#)
- » [Weighing In](#)
- » [Parents, schools team up](#)
- » [Crowd favors Central](#)
- » [Reeves jury to decide](#)
- » [Meeting addresses health of minorities](#)
- » [Wellfield garden has director](#)
- » [Local Digest](#)
- » [Where's fall?](#)
- » [Government At A Glance](#)
- » [Eatery damaged by fire](#)

Week's Most Popular

- » [Boarding house operated illegally](#)
- » [Family, friends mourn](#)
- » [The road untraveled](#)
- » [Before it's too late](#)
- » [Strong takes stand](#)

ELKHART -- The Red Hot Mamas Lecture Series will resume at 7 p.m. Thursday at the Health Education Center on Elkhart General Healthcare System's Goshen Campus, 2222 Rieth Blvd., next to Lowe's on U.S. 33.

Dr. Martina McGowan of the Listening Place in Elkhart will present a lecture on "The Natural Way: Alternative to Hormone Replacement Therapy." She will discuss lifestyle changes that may be beneficial for women reaching menopause, as well as some of the more common alternatives, such as bio-identical hormones and herbal medicine.

Red Hot Mamas is a series of monthly lectures focusing on menopause and related problems. Each session includes physicians, health-care professionals or other specialists presenting specific topics and encouraging discussion.

The program fee is \$10 per lecture. To register, call the Elkhart General Women's Center at 875-3863.

South Bend: Home, garden classes offered this summer


SOUTH BEND -- Indiana University South Bend Continuing Education will offer two new home and garden classes this summer.

* "Lawn Care 101" will meet from 6 to 8 p.m. on Wednesdays, today through July 28 at the IUSB Elkhart Center. Master gardener Steve Kruse will teach the basics of getting and maintaining a healthy lawn. The cost is \$124.

* "Introduction to Edible Plants" will meet from 10 a.m. to 4 p.m. Saturday and June 26 at the IUSB Elkhart Center. This class will teach plant identification, edibility and Native American uses, along with a trip to Camp Friedenswald in southwestern Michigan. Cost is \$99.

To register, call the Continuing Education office at 237-4261, or visit www.iusb.edu/~cted on the Web.

The Way We Were/Dick Dunn

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MEMORANDUM

June 28, 2004

TO: LFA Project File No. 200406.00

FROM: ➔ Adin M. McCann, P.E. *Adin M. McCann*

RE: Elkhart County Commissioners
Section 205(j) Watershed Planning Grant
Puterbaugh Creek – Heaton Lake Watershed Management Plan
Stakeholder Meeting No. 1
Public Meeting No. 2

The first Stakeholder Meeting for the above referenced project was conducted at the Osolo Township Emergency Medical Services Building on June 16, 2004. This meeting was the second in a series of eight (8) public meetings being conducted for the project. Copies of the agenda, sign-in sheet and handouts are included with this memorandum.

The meeting began with an introduction by Ms. Kristine Krueger, Grants Specialist, of the Elkhart County Commissioners' Office. Mr. John Fisher provided a general discussion and brief overview of water quality issues and regulatory programs covering these issues. Mr. Adin McCann then provided a brief description of the 205(j) Watershed Planning Project.

Additionally, an update on the Heaton Lake Sewer Project was given by Ms. Mary Sproull, a resident of Lake Heaton, and Ms. Krueger. At this point in time, the Heaton Lake Sewer Board is exploring funding options for the required engineering and construction services. The Board has rejected the idea of a bond issue and has approached the State regarding availability of funds. Ms. Krueger expects that there will be a public meeting regarding the formation of a Regional Sewer District at some point late this Summer. It is not believed that any construction activities would take place prior to Summer 2005.

After completing the overview and project updates, the stakeholders were given an opportunity to ask questions and/or comment on the 205(j) project. The following items were discussed:

- One attendee expressed significant concern regarding the rezoning of approximately 1,400 acres near the C.R. 17 bog on the east side of the watershed. This area has been rezoned for commercial/industrial development. Generally speaking, the rezoned area is bounded on the west by C.R. 15 and on the east by C.R. 19. The approximate northern boundary is State Line Road and the area extends to just south of the Toll Road.
- One attendee stated that, in the past, there was also another bog at the northern end of C.R. 13. This area was at one time part of a single large lake that included Simonton Lake.



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- A few of the attendees had specific suggestions of where to obtain existing information to aid in the development of the Watershed Management Plan. The following sources were suggested:
 - Water level data from the United States Geological Society (USGS)
 - Indiana Department of Natural Resources (IDNR) Fisheries Surveys (Neil Ledet)
 - City of Elkhart Aquatic Biologist (Joe Foy)
 - City of Elkhart – data collected from investigation of new well field
 - City of Elkhart Regulatory Affairs Specialist – Mark Salee
 - City of Elkhart – Storm sewer outfall sampling along Puterbaugh Creek (Elkhart WWTP – Lynn Newvine)
 - Heaton Lake – Secchi disk readings and associated volunteer water quality data (Dave Simmons).
- A few of the attendees commented on issues concerning their drinking water. All the residents of Heaton Lake utilize private wells to obtain potable water. Although there were no known health risks pertaining to consumption of the well water, several of the residents reported problems with odor and/or clarity of the water.
- Generally speaking, the residents of Heaton Lake are interested in seeing the Lake healthy, thriving.
- One attendee, who performs voluntary water monitoring for the Heaton Lake Conservation Club, stated that he has Secchi data which includes a clarity decrease of 2.6 feet in the Lake over the last several year.
- A representative from the Elkhart County Surveyor's Office indicated that the Drainage Board has been trying to get sediment traps installed upstream of Heaton Lake. However, historically, there has not been a lot of support for sediment traps due to the maintenance requirement. The Drainage Board is working to change this perception because it believes that they can be beneficial to water quality.
- Ms. Nancy Brown from the Elkhart County Soil and Water Conservation District stated that it was a good idea for the residents to have their drinking water tested on a regular basis. Ms. Brown also provided information on the testing services available to the residents through an agreement with Heidelberg College in Ohio.
- One attendee thought it would be beneficial if there were a follow up study to document and measure the effects of any implemented Best Management Practices (BMPs) and planned development within the watershed.



LFA Project File No. 200406.00

June 28, 2004

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- As a direct result of the future study issue, Ms. Brown discussed the Hoosier Riverwatch program and how it might be beneficial to the watershed residents.
- A sizable portion of the watershed is located in Michigan. Consequently, there was some question as to what, if any, coordination will be accomplished with Michigan agencies as a result of this project. In response to this question, it was pointed out that the majority of tributaries from Michigan entered Indiana at two (2) distinct points along State Line Road. One is sampling location No. 01. The other is just east of C.R. 15. Although this second location is not being sampled at its entry point into Indiana, it is believed that the chosen location (No. 02) will still be able to provide some valuable insight.
- Coordination is still being conducted to obtain any existing water quality data for the Michigan portion of the watershed. At this point in time, the Michigan Department of Environmental Quality (MDEQ) and the Cass County Health Department have been contacted regarding this issue. Unfortunately, at this point in time, no existing water quality data has been located.
- One attendee pointed that Indiana benefits from an extensive wetland area that potentially filters out many harmful pollutants coming from the northern portion of the watershed.
- The northern boundary for the City of Elkhart's sewer and water services is approximately C.R. 6.
- The next stakeholder meeting will be conducted in late September. It was decided that Lawson-Fisher would bring the following items to the next meeting:
 - Land Use Areas – separated by State and type
 - Refined listing of Best Management Practices (BMPs)
 - Water quality testing results
 - List of existing data sources.

AMM/bsa

Encls.

c: Kristine Krueger w/Encls.

John E. Fisher, P.E. w/Encls.



Elkhart County Commissioners
205(j) Watershed Planning Grant
Puterbaugh Creek – Heaton Lake Watershed Management Plan

Joint Stakeholder Committee Meeting

June 16, 2004 at 6:00 P.M.

Agenda

1. Welcome and Introduction
2. Water Quality Issues
 - *Watersheds*
 - *Non-Point Source Pollution*
 - *Point Source Pollution*
 - *IDEM/EPA 205(j) Grant*
3. Puterbaugh Creek – Heaton Lake Watershed Management Plan Project
 - *Objectives*
 - *Joint Stakeholder Committee*
 - *Planning Tasks*
 - *Schedule*
4. Conclusion
5. Discussion
6. Future Meetings

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Elkhart County Commissioners
Section 205(j) Watershed Management Plan Grant
Puterbaugh Creek - Heaton Lake Watershed

MASTER LIST - BMP's (Existing and Proposed)

	Existing	Proposed		Existing	Proposed
MCM #1 - Public Education & Outreach			MCM #5 - Post Construction Storm Water Management		
1 Classroom Education on Storm Water			STRUCTURAL BMP's		
2 Education/Outreach for Commercial Activities			1 Bioretention		
3 Educational Displays, Pamphlets, Booklets, Utility Stuffers			2 Catch Basins		
4 Lawn & Garden Practices			3 Dry Detention Basins		
5 Low Impact Development Outreach Programs			4 Dry Retention Basins		
6 On-site Waste Disposal Outreach			5 Grassed Filter Strip		
7 Outreach Programs for Minority/Disadvantaged Communities			6 Grassed Swale / Channel		
8 Pet Waste Management			7 Infiltration Basin		
9 Pollution Prevention for Businesses			8 Infiltration Trench		
10 Promotional Giveaways			9 In-Line Storage		
11 Proper Disposal of Hazardous Wastes			10 Manufactured Products for Storm Water Inlets		
12 Roadside Signage			a Catch Basin Insert / Inlet Filters		
13 Storm Water Educational Materials			b Swirl Flow Regulator/Separator		
14 Storm Water Website			11 Off-Line Storage		
15 Trash Management			12 Porous Pavement		
16 Using the Media for Pollution Prevention Programs			13 Sand and Organic Filters		
17 Video Presentation Programs			14 Storm Water Wetlands / Plantings		
			15 Stream Restoration		
MCM #2 - Public Involvement/Participation			a Aeration Practices		
1 Adopt-A-Stream Programs			b Thermal Reduction Practices		
2 Attitude Surveys			16 Subsurface Drainage Systems		
3 Community Hotlines			17 Wet Detention Basins		
4 Reforestation Programs			18 Wet Retention Basins		
5 Stakeholder & Public Meetings			NONSTRUCTURAL BMP's		
6 Storm Drain Stenciling			1 Alternative Turnarounds		
7 Stream Cleanup and Monitoring			2 BMP Inspection and Maintenance		
8 Volunteer Monitoring			3 Conservation Easements		
9 Watershed Organization			4 Eliminating Curbs and Gutters (Context Sensitive Road Design)		
			5 Green Parking		
MCM #3 - Illicit Discharge Detection & Elimination			6 Heated Concrete (Salt Alternative)		
1 Control of Runoff From Confinement Areas			7 Infrastructure Planning		
2 Septic System Inspection and Maintenance			8 Low Impact Development (Natural Area Conservation)		
3 Identifying Illicit Connections (Sanitary Surveys, Mapping, WQ Testing)			9 Narrower Residential Streets		
4 Monitoring & Prevention of Illegal Dumping			10 Open Space Design (Context Sensitive)		
5 Reduction of Non-Storm Water Discharges			11 Policies to Utilize Conservation Practices		
6 Proper Disposal of Recreational Vehicle & Marine Sewage			12 Proper Zoning Consideration		
7 Reduction of Sanitary Sewer Overflows (SSOs)			13 Regulatory Controls for Postconstruction Runoff		
			14 Stormwater Land Use Controls (Buffer Zones)		
			15 Urban Forestry		
MCM #4 - Construction Site Storm Water Runoff Control			MCM #6 - Pollution Prevention/Good Housekeeping		
STRUCTURAL BMPs			1 Alternative Discharge Options for Chlorinated Water		
RUNOFF CONTROL			2 Alternative Winter Road Management		
1 Check Dams			3 Automobile Maintenance & Vehicle Washing		
2 Filter Berms			4 Bridge Cleaning, Maintenance, and Deck Drainage		
3 Grass-Lined Channels			5 Catch Basin Cleaning		
4 Land Grading for Runoff Control			6 Chemical Storage Practices		
5 Log Stabilizers			7 Dewatering (Thermal Reduction, Overtopping or Mosquito Prevention)		
6 Permanent Diversions			8 Hazardous Materials Storage & Practices		
7 Preserving Natural Vegetation			9 Household Hazardous Waste Collection		
8 Proper Construction Entrances			10 Illegal Dumping Control		
9 Riprap			11 Landscaping and Lawn Care Practices		
EROSION CONTROL (SOIL RETENTION)			12 Litter and Debris Control		
1 Bank Grading and Planting			13 Materials Management		
2 Chemical Stabilization			14 Parking Lot and Street Cleaning		
3 Construction Sequencing			15 Pest Control		
4 Dust Control			16 Pet Waste Collection		
5 Gabions			17 Road Salt Application and Storage (Winter Road Management)		
6 Geotextiles			18 Roadway Maintenance		
7 Grade Stabilization Structures			19 Septic System Controls		
8 Gradient Terraces			20 Spill Response and Prevention		
9 Maintenance of Vegetative Cover			21 Storm Drain System Cleaning		
10 Mulching			22 Recycling Programs		
11 Permanent Seeding			23 Wellhead Protection Programs		
12 Slope/Shoreline Stabilization					
13 Sodding					
14 Soil Roughening					
15 Temporary Slope Drain					
16 Temporary Stream Crossings					
17 Vegetated Buffer					
SEDIMENT CONTROL					
1 Brush Barrier					
2 Sediment Basins and Rock Dams					
3 Sediment Filters and Sediment Chambers					
4 Sediment Trap					
5 Silt Fence					
6 Storm Drain Inlet Protection					
7 Straw Bale Check Dams					
8 Temporary Diversion Dikes					
9 Wind Fences and Sand Fences					
NONSTRUCTURAL BMPs					
1 Construction Review / Procedure					
2 Construction Site Inspection and Maintenance					
3 Contractor Certification and Inspector Training					
4 General Construction Site Waste Management					
5 Regulatory Controls for Construction Site Runoff					

September 29, 2004
Public Meeting

Press Release

Elkhart County Commissioners Puterbaugh Creek - Heaton Lake
Watershed Management Plan

Elkhart County Commissioners have received a \$60,000 Federal Fiscal Year 2002 205(j) Water Quality Planning Grant from the US Environmental Protection Agency for the development of a Watershed Management Plan for the Puterbaugh Creek - Heaton Lake Watershed. The Puterbaugh Creek - Heaton Lake Watershed encompasses an area of approximately 17 square miles. Its northern boundary extends into the State of Michigan and south to include the Heaton Lake and Puterbaugh Creek. This watershed study area encompasses nearly all of Osolo Township and the western portion of Washington Township.

A Joint Stakeholder Meeting is scheduled for 6:00 PM on Wednesday, September 29, 2004 at Eastwood Elementary School located at 53215 CR 15 North, Elkhart, Indiana. The purpose of the meeting is to inform the public about the Watershed Management Plan Project and invite participation in the Watershed Planning process.

Questions concerning this meeting should be directed to Mr. Christopher J. Jeter at Lawson-Fisher Associates (574) 234-3167 or Ms. Kristine Krueger at the Elkhart County Commissioners Office (574) 535-6746.



Local News



Local Digest

Published: Monday, September 20, 2004 -- The Truth, A3
Last updated: 9/19/2004 11:42:00 PM

Patrollers report on gas price highs and lows

Gasoline prices ranged between \$1.82 and \$1.93 a gallon across The Truth readership area on Sunday, according to Pump Patrol reports.

The station on M-60 in Vandalia took low honors at \$1.82, while the Shell station at Bittersweet and McKinley Highway in Osceola took high honors with \$1.93.

In between, the Citgo at Franklin and Indiana was "remaining steady" with the Speedway station at S.R. 19 and Mishawaka, each posting \$1.85.

The BP station at S.R. 13 and S.R. 120 in Middlebury posted \$1.89, while the Phillips 66 on S.R. 933 near Beech Road in Osceola posted \$1.91.

Goshen: Water main flushing begins today

GOSHEN -- The Goshen water department will be flushing mains in the center and south parts of the city from 10 p.m. today to 6 a.m. Tuesday. The area is from Pike Street and the railroad tracks south between the Elkhart River and Ninth Street.

Residents there are asked to avoid doing laundry during that time. If you have a problem with your laundry, you can get special soap from the water department at 534-5306.

Elkhart: Plan to protect watershed to be discussed

ELKHART -- The plan for protecting the Heaton Lake and Puterbaugh Creek watershed will be covered during a Sept. 29 meeting.

Public participation is encouraged at the 6 p.m. event in Eastwood Elementary School, 53215 C.R. 15, Elkhart. Studies of the 17-mile watershed were funded with grants from the U.S. Environmental Protection Agency.

For more information about the plan and the meeting, call Kris Krueger with the Elkhart County commissioners, 534-3541, or Christopher Jeter of Lawson-Fisher Associates, 234-3167.

Goshen: Testing slated for sheriff's department jobs

GOSHEN -- Testing for available positions at the Elkhart County Sheriff's Department will take place at 10 a.m. Saturday in the county's Administration Building.

Today's News

- » [Bayer plant closing](#)
- » [Weighing In](#)
- » [Parents, schools team up](#)
- » [Crowd favors Central](#)
- » [Reeves jury to decide](#)
- » [Meeting addresses health of minorities](#)
- » [Wellfield garden has director](#)
- » [Local Digest](#)
- » [Where's fall?](#)
- » [Government At A Glance](#)
- » [Eatery damaged by fire](#)

Week's Most Popular

- » Boarding house operated illegally
- » Family, friends mourn
- » The road untraveled
- » Before it's too late
- » Strong takes stand

The county is hiring several corrections officers to be trained and working by the time new inmate housing opens by early 2007.

Applicants must fill out an application, have basic math, grammar and writing skills and successfully complete interviews and background checks, including a polygraph examination.

For more information about the jobs, visit the county's personnel office at 117 N. Second St. in Goshen -- the testing site -- or call 535-6725. Forms also are available on the Internet at www.elkhartcountyindiana.com.

Future testing dates are Oct. 21, Nov. 17 and Dec. 15.

Union: Benefit to raise funds for medical costs

UNION -- A benefit for 3-year-old Noah Mikel will be at 5 p.m. (Michigan time) Saturday at the Cass County Conservation Club on U.S. 12.

The youngster, son of Lee and Malena Mikel of Nappanee, received a kidney transplant Aug. 11 at Riley Hospital for Children in Indianapolis. His cousin, Julie Crane, was the donor.

The benefit is to raise money for medical and family expenses of trips to Indianapolis. Donations may be made to Noah Mikel at KeyBank in Nappanee.

The benefit will feature a hog roast, dancing and raffles.

Mishawaka: Program for seizure treatment planned

MISHAWAKA -- A free education program for people with seizures and their families will be presented from 6:30 to 8 p.m. Wednesday at To Your Health, next to Sears in University Park Mall.

The program will focus on treatment-resistant epilepsy, including available treatment options. A health-care provider and a patient will discuss experiences with VNS therapy.

Registration is being accepted by calling To Your Health at 273-5534.

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200406.00

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THOMAS S. SHARP, P.E.
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JEFFREY L. MCKEAN, P.E.
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DAN G. DELGADO, P.E.
MARK H. FOSTER, P.E.
CHARLES F. FARRELL, P.E.
ADIN M. McCANN, P.E.
MICHAEL J. GUZIK, P.E.

September 16, 2004

Ms. Nancy Brown, Program Manager
Elkhart County SWCD
17746-B C.R. 34
Goshen, IN 46528

RE: Elkhart County Commissioners
Section 205(j) Watershed Management Plan Grant
Puterbaugh Creek – Heaton Lake Watershed
Watershed Steering Committee Meeting

Dear Ms. Brown:

The following letter is to inform you that a Watershed Steering Committee Meeting is scheduled for the above referenced project. The meeting is scheduled for 6:00 P.M. on Wednesday, September 29, 2004, at Eastwood Elementary School located at 53215 County Road 15 North, Elkhart, Indiana. The purpose of the meeting is to inform the public about the Watershed Management Plan Project and invite participation in the Watershed Planning process.

Please do not hesitate to contact us should you have any questions or comments.

Very truly yours,

LAWSON-FISHER ASSOCIATES P.C.



Christopher J. Jeter, P.E.
Civil Engineer

CJJ/bsa

c: Kristine Krueger
John E. Fisher, P.E.
Piper C. Tittle, P.E.

**Elkhart County Commissioners
Section 205(j) Watershed Management Plan Grant
Puterbaugh Creek – Heaton Lake
Watershed Steering Committee Meeting**

Ms. Kristine Krueger
Elkhart County Government
117 North Second Street
Goshen, IN 46526

Mr. Robert Watkins
Elkhart County Health Department
4230 Elkhart Road
Goshen, IN 46526

Mr. John Hulewicz
Elkhart County Health Department
4230 Elkhart Road
Goshen, IN 46526

Mr. Denny Lyon
Elkhart County Surveyor's Office
4230 Elkhart Road
Goshen, IN 46526

Mr. Blake Doriot
Elkhart County Surveyor's Office
4230 Elkhart Road
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Mr. Steve Schweisberger
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Ms. Nancy Brown
Elkhart County SWCD
17746-B C.R. 34
Goshen, IN 46528

Ms. Bev Stevenson
Elkhart County SWCD
17746-B C.R. 34
Goshen, IN 46528

Mr. Donald Parker
2101 Grant Street
Elkhart, IN 46514

Mr. Everett Lienhart
22541 Lakeshore Drive
Elkhart, IN 46514

Mr. Scott Robinia
22880 Lakeshore Drive
Elkhart, IN 46514

Mr. Bill West
23170 Heaton Vista
Elkhart, IN 46514

Ms. Bonnie Shanholt
23197 Heaton Vista
Elkhart, IN 46514

Mr. Don West
52352 C.R. 13
Elkhart, IN

Mary Sproull
23173 Heaton Vista
Elkhart, IN 46514

Mr. James Riley
22886 Lake Shore Drive
Elkhart, IN 46514

Mr. and Mrs. Ty Miller
29893 Olin Court
Elkhart, IN 46514

Mr. Ben Russo
25600 County Road 4
Elkhart, IN 46514

Mr. Kyle Hannon
5 Kim Court
Elkhart, IN 46514

Mr. Bob Stone
23019 Lakeshore Drive
Elkhart, IN 46514

**Elkhart County Commissioners
Section 205(j) Watershed Management Plan Grant
Puterbaugh Creek – Heaton Lake
Watershed Steering Committee Meeting**

Mr. Dave Simmons
22892 Lakeshore Drive
Elkhart, IN 46514-9571

Mr. John Hardy
54507 David Drive
Elkhart, IN 46514

Mr. and Ms. Tom Davis
52860 County Road 15
Elkhart, IN 46514

Mr. Nathan Rice, Grant Project Manager
Indiana Dept. of Environ. Mgmt.
Watershed Management Section
100 North Senate Avenue
Indianapolis, IN 46204



MEMORANDUM

October 13, 2004

TO: LFA Project File No. 200406.00

FROM: Christopher J. Jeter, P.E. *Chris J. Jeter*

RE: Elkhart County Commissioners
Section 205(j) Watershed Planning Grant
Puterbaugh Creek – Heaton Lake Watershed Management Plan
Stakeholder Meeting No. 2
Public Meeting No. 3

The second stakeholder meeting for the above referenced project was conducted at Eastwood Elementary School on September 29, 2004. This meeting was the third in a series of eight (8) public meetings being conducted for the project. Copies of the agenda, sign-in sheet and handouts are included with this memorandum.

The meeting began with an introduction and a brief overview of the Watershed Planning Project by Mr. Chris Jeter. Mr. Jeter provided an overview of the following four (4) items which were requested by the Steering Committee in the June 16, 2004 Stakeholder Meeting:

- Land Use Areas -- separated by State and Type
- Refined listing of Best Management Practices (BMPs)
- Water Quality Testing Results
- List of Existing Data Sources

After completing the overview and project updates, the stakeholders were given an opportunity to ask questions and/or comment on the four (4) items listed above and the 205(j) Project. The following items were discussed:

- The attendees found the separation of land use area by State and type to be informative. One attendee was particularly interested in the drainage area of Heaton Lake. Per the USGS Water Resources Data for Indiana publication, the drainage area for Heaton Lake is 9.33 square miles.
- The refined list of BMPs was reviewed by the Steering Committee. Mr. John Fisher explained that the City of Elkhart, under the Municipal Separate Storm Sewer (MS4) program, will be implementing a number of BMPs within the corporate limits of the City and the urbanized area of the County. A portion of the MS4 area is located within the Puterbaugh Creek – Heaton Lake Watershed.
- The results of the water quality testing within the watershed were presented to the Steering Committee. Mr. Jeter explained that sampling had occurred during two (2) wet weather events and two (2) dry weather events and this completes the sampling requirement for the 205(j) Project. The laboratory results had been completed for the June 10, 2004 wet weather event and the laboratory results are pending for the other three (3) sampling events.



LFA Project File 200406.00

October 13, 2004

Page 2

- One of the attendees noted that Sampling Location No. 5, Jacob Myers Ditch, is actually Puterbaugh Creek. The stream name north of County Road 6 is Jacob Myers Ditch and south of County Road 6 is Puterbaugh Creek. Sampling Location No. 5 is south of County Road 6.
- Mr. Jeter explained that the high level of surfactants at Sampling Location No. 3, Mather Ditch, is indicative of laundry detergent in the creek. One of the attendees noted that soap suds can be seen at this location at the end of many weekends.
- Mr. Jeter reviewed the list of existing data sources with the attendees. One of the attendees brought Secchi disk data that he had compiled on Heaton Lake. In addition, one of the attendees recommended that Karen Mackowiak at the Michiana Area Council of Governments (MACOG) be contacted to determine if she knew of any existing water quality data that had been collected within the watershed.
- The educational brochure and crossword puzzle for children that was produced by Lawson-Fisher was distributed to each attendee. In addition, a number of other educational/outreach items from the Environmental Protection Agency (EPA) were presented to the attendees. Mr. Jeter asked the attendees to review the material. In addition, Mr. Jeter will be contacting the agencies listed as additional contacts on the brochure to obtain their approval.
- The next stakeholder meeting will be conducted in late December. Lawson-Fisher will be bringing a summary of the water quality sampling results for each of the Steering Committee members to review.

CJJ/cas

Encls.



**Elkhart County Commissioners
205(j) Watershed Planning Grant
Puterbaugh Creek – Heaton Lake Watershed Management Plan**

Joint Stakeholder Committee Meeting

September 29, 2004 at 6:00 P.M.

Agenda

1. Welcome and Introduction
2. Previous Stakeholder Meeting Issues
 - *Land Use Areas*
 - *Refined List of Best Management Practices (BMPs)*
 - *Water Quality Testing*
 - *Existing Data Sources*
3. Puterbaugh Creek – Heaton Lake Watershed Management Plan Project
 - *Project Brochure and Outreach Materials*
 - *Planning Tasks*
 - *Schedule*
4. Conclusion
5. Discussion
6. Future Meetings

Elkhart County 205(j) Grant Project
Puterbaugh Creek/Heaton Lake Watershed Land Use Summary

Land Use Type	Indiana Area of Land Use acres	Indiana Percent of Total Land Use	Michigan Area of Land Use acres	Michigan Percent of Total Land Use	Total Area of Land Use acres	Percent of Total Land Use
Undeveloped	1756.9	16.0%	492.3	4.5%	2249.2	20.5%
Agricultural	2531.0	23.0%	2402	21.8%	4933.0	44.9%
Residential	2045.0	18.6%	825.7	7.5%	2870.7	26.1%
Commercial	81.8	0.7%			81.8	0.7%
Manufacturing	727.2	6.6%			727.2	6.6%
Institutional - School	15.9	0.1%			15.9	0.1%
Institutional - Church	1.8	0.0%			1.8	0.0%
Ideal Beach	26.8	0.2%			26.8	0.2%
Heaton Lake	87.6	0.8%			87.6	0.8%
Total	7274.0	66.2%	3720	33.8%	10994.0	100.0%

Note: Land use digitized by Lawson-Fisher Associates P.C.

Elkhart County Commissioners
Section 205(j) Watershed Management Plan Grant
Puterbaugh Creek - Heaton Lake Watershed
Existing Data Sources

Data Source	Data Type	Notes
USGS	Heaton Lake water level	Available
Elkhart County	Septic Database 2000 - 2004	Available
Elkhart County	Surface Water Data	Available
watershed residents	Heaton Lake - Secchi disk readings	Available
LFA	C.R. 17 bog data	Available
IDNR	Chemical and Biological data	No data available - per Neil Ledet
City of Elkhart	Chemical and Biological data	No chemical data available - per Joe Foy Only fish related work performed in watershed
City of Elkhart	Data from new wellfield	Data outside watershed limits - per Art Umble
City of Elkhart	Water Quality sampling	No testing in watershed or Heaton Lake per Mark Salee
City of Elkhart	Water Quality sampling	No sampling performed yet; sampling will be performed soon as part of Phase II requirements per Lyn Newvine
Cass County	Water Quality data	No existing data available
MDEQ	Water Quality data	No existing data available

Elkhart County Commissioners
Section 205(j) Watershed Management Plan Grant
Puterbaugh Creek - Heaton Lake Watershed

MASTER LIST - BMP's (Existing and Proposed)

	MS4	205(j)		MS4	205(j)
MCM #1 - Public Education & Outreach			MCM #5 - Post Construction Storm Water Management		
1 Classroom Education on Storm Water			STRUCTURAL BMP's		
2 Education/Outreach for Commercial Activities			1 Grassed Filter Strip		
3 Educational Displays, Pamphlets, Booklets, Utility Stuffers			2 Grassed Swale / Channel		
4 Storm Water Educational Materials			3 Storm Water Wetlands / Plantings		
MCM #2 - Public Involvement/Participation			NONSTRUCTURAL BMP's		
1 Stakeholder & Public Meetings			1 BMP Inspection and Maintenance		
2 Storm Drain Stenciling			2 Stormwater Land Use Controls (Buffer Zones)		
3 Stream Cleanup and Monitoring			MCM #6 - Pollution Prevention/Good Housekeeping		
MCM #3 - Illicit Discharge Detection & Elimination			1 Landscaping and Lawn Care Practices		
1 Control of Runoff From Confinement Areas			2 Litter and Debris Control		
2 Septic System Inspection and Maintenance			3 Parking Lot and Street Cleaning		
3 Identifying Illicit Connections (Sanitary Surveys, Mapping, WQ Testing)			4 Septic System Controls		
4 Proper Disposal of Recreational Vehicle & Marine Sewage			5 Storm Drain System Cleaning		
MCM #4 - Construction Site Storm Water Runoff Control					
STRUCTURAL BMPs					
RUNOFF CONTROL					
1 Proper Construction Entrances					
2 Riprap					
EROSION CONTROL (SOIL RETENTION)					
1 Construction Sequencing					
2 Geotextiles					
3 Permanent Seeding					
4 Sodding					
SEDIMENT CONTROL					
1 Silt Fence					
2 Storm Drain Inlet Protection					
3 Straw Bale Check Dams					
NONSTRUCTURAL BMPs					
1 Construction Review / Procedure					
2 Construction Site Inspection and Maintenance					
3 Contractor Certification and Inspector Training					
4 General Construction Site Waste Management					
5 Regulatory Controls for Construction Site Runoff					

Elkhart County 205(j) Grant Project
Water Quality Monitoring Results

DRAFT 9-29-04

	Water Quality Guidelines					6 - 9	Varies by month		750 mg/L		5 mg/L		235 CFU/100 mL		Varies with pH and Temperature	10 ppm				
No.	Sampling Location	Date	Time	Ambient Temp. (°C)	Weather Condition	pH	Water Temp. (°C)	Cond. (µS/cm)	TDS	Color	DO (mg/L)	DO (%)	E. Coli	TKN (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Orthophosphorus (mg/L)	Total Phosphorus (mg/L)	TSS (mg/L)	MBAS (Surfactants) (mg/L)
Wet Weather Sample	1 Rhineheart Lateral	6/10/2004				7.72	19.2	373	190	Light Brown	6.97	75.1	11000	1.8	0.3	2.5	<0.05	0.37	35	<0.1
	2 Kindig/Kellog	6/10/2004	2:45 PM	21.7	Light Rain	7.22	21.3	210	107	Rust/Brown	1.35	15.1	1360	1.6	0.2	<0.1	<0.05	0.27	6	0.21
	3 Mather Ditch	6/10/2004	3:00 PM	21.7	Overcast	8.07	23.2	388	197	Clear	6.85	74.6	280	0.49	<0.05	<0.1	<0.05	<0.05	18	20
	4 Bishop Ditch	6/10/2004		21.7	Light Rain	7.57	20.5	361	184	Light Brown	3.88	43.8	1640	1.3	0.3	<0.1	<0.05	0.41	5	0.14
	5 Jacob Myers Ditch	6/10/2004		21.7	Overcast	7.97	21.5	385	196	Clear	7.01	79.6	360	0.99	<0.05	<0.1	<0.05	0.24	8	<0.1
	6 Puterbaugh Creek	6/10/2004	3:00 PM	21.7	Overcast	8.08	21.2	396	201	Clear	7.95	89.2	900	1.1	0.4	0.12	<0.05	0.34	2	0.12
	Duplicate Rhineheart Lateral	6/10/2004	2:25 PM		Light Rain	7.72	19.2	373	190	Light Brown	6.97	75.1	11000	1.8	0.4	2.5	<0.05	0.26	32	0.12
	Trip Blank	6/10/2004											<1	0.72	0.2	0.23	<0.05	<0.1	<1	<0.1
Dry Weather Sample	1 Rhineheart Lateral	9/13/2004	9:00 AM	24.5	Sunny	8.1	14.9			Light Brown	7.27	72								
	2 Kindig/Kellog	9/13/2004	9:10 AM	24.5	Sunny	7.4	16.3			Light Brown	0.26	2.6								
	3 Mather Ditch	9/13/2004	9:40 AM	24.5	Sunny	8.2	22.1			Clear	9.9	113.5								
	4 Bishop Ditch	9/13/2004	9:30 AM	24.5	Sunny	7.7	14.8			Yellowish - Green	1.12	10.9								
	5 Jacob Myers Ditch	9/13/2004	9:55 AM	24.5	Sunny	8	18.3			Clear	7.04	74.8								
	6 Puterbaugh Creek	9/13/2004	10:10 AM	24.5	Sunny	8	16.9			Clear	7.59	78.3								
	Duplicate Kindig/Kellog	9/13/2004	9:10 AM	24.5	Sunny	7.4	16.3			Light Brown	0.26	2.6								
	Trip Blank	9/13/2004																		
Wet Weather Sample	1 Rhineheart Lateral	9/16/2004	7:30 AM	21.1	Sunny	8.4	18.6			Light Brown	4.7	50.6								
	2 Kindig/Kellog	9/16/2004	8:00 AM	21.1	Sunny	7.6	19.2			Light Brown	0.26	2.8								
	3 Mather Ditch	9/16/2004	8:35 AM	21.1	Sunny	8.4	23.4			Clear	8.3	97.2								
	4 Bishop Ditch	9/16/2004	8:15 AM	21.1	Sunny	7.8	18.1			Light Green	1.92	16.6								
	5 Jacob Myers Ditch	9/16/2004	8:55 AM	21.1	Sunny	8	17.6			Clear - Light Green	6.48	67.5								
	6 Puterbaugh Creek	9/16/2004	9:10 AM	21.1	Sunny	8.1	17.1			Clear - Light Green	6.98	72.8								
	Duplicate Bishop Ditch	9/16/2004	8:15 AM	21.1	Sunny	7.8	18.1			Light Green	1.92	16.6								
	Trip Blank	9/16/2004																		
Dry Weather Sample	1 Rhineheart Lateral	9/21/2004	7:00 AM	15.6	Sunny	8.2	10.6			Light Brown	6.86	66.5								
	2 Kindig/Kellog	9/21/2004	7:10 AM	15.6	Sunny	8.1	12.6			Brown	1.01	9.6								
	3 Mather Ditch	9/21/2004	7:40 AM	15.6	Sunny	8.4	18.5			Clear	8.98	95.6								
	4 Bishop Ditch	9/21/2004	7:30 AM	15.6	Sunny	8	12.4			Light Brown	2.46	21.5								
	5 Jacob Myers Ditch	9/21/2004	8:00 AM	15.6	Sunny	8.2	12.3			Light Green	7.84	73.2								
	6 Puterbaugh Creek	9/21/2004	8:15 AM	15.6	Sunny	8.2	12.7			Clear - Light Green	8.47	79.7								
	Duplicate Rhineheart Lateral	9/21/2004	7:00 AM	15.6	Sunny	8.2	10.6			Light Brown	6.86	66.5								
	Trip Blank	9/21/2004																		

Additional Contact Information:

Elkhart County Soil & Water
Conservation District
17746-B C.R. 34
Goshen, Indiana 46528

Elkhart County Health Department
4230 Elkhart Road
Goshen, Indiana 46526

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Duane Burrow, Stormwater Manager
4230 Elkhart Road
Goshen, Indiana 46526

Elkhart County Solid Waste
Management District
500 North Nappanee
Elkhart, Indiana 46514

Indiana Department of
Environmental Management
Watershed Management Section
100 North Senate Avenue
Indianapolis, Indiana 46204

Elkhart County Commissioners

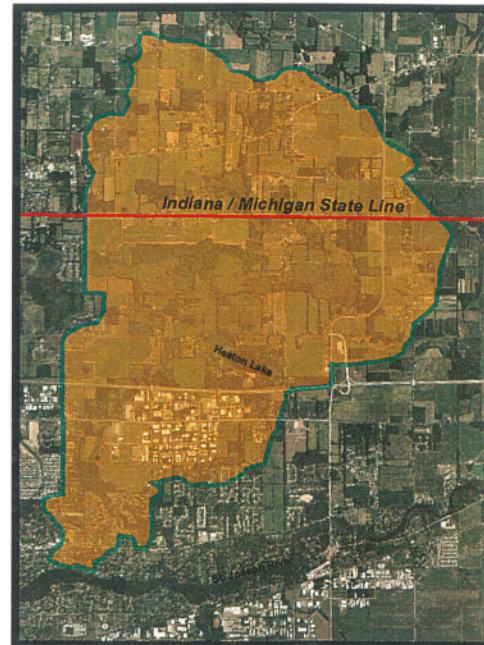
117 N. Second Street
Goshen, IN 46526
574-534-3541

Published September 27, 2004



Puterbaugh Creek- Heaton Lake Watershed Issues

Elkhart County Commissioners



Elkhart County Heaton Lake Watershed

This project has been funded wholly or in part by the United States Environmental Protection Agency under assistance agreement (C697575-02) to the Indiana Department of Environmental Management. The contents of this document do not necessarily reflect the views and policies of the Environmental Protection Agency, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

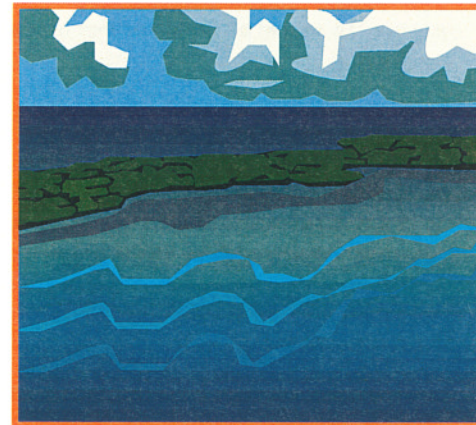
Water Quality Issues Within Your Watershed

*No matter where we live,
we all live in a watershed.*

What is a watershed?

*A watershed is the area of
land that water moves across or
under while flowing to a stream,
spring, pond, lake, or river.*

*The name of the water-
shed you live in is the Puterbaugh
Creek—Heaton Lake Watershed.
This watershed mainly consists of
agricultural, undeveloped, and
residential land uses.*



Why Should I Care About My Watershed?

*All of our daily activities
within the Puterbaugh Creek—
Heaton Lake Watershed have a
direct effect upon the water
quality of the entire watershed.
When it rains or snowmelt occurs,
runoff from farmland, impervious
roadways, construction sites, and
suburban lawns, roofs, and drive-
ways enters the network of wa-
terways in the watershed. This
runoff can contain harmful sub-
stances such as pesticides, bac-
teria, salts, sediment, oil, grease,
and chemicals. Since many of
these pollutants do not originate
from a single source, they are
considered non-point source pol-
lution.*

What are the Major Sources of Non-Point Source Pollution?

Agriculture Pollution

Livestock waste, fertilizers, pesticides, oil from farm equipment, soil and sediment can be carried away by stormwater runoff from barnyards, feedlots, and cropland.

Non-point source pollution from agricultural runoff can effect the aquatic habitat of streams and rivers by reducing the oxygen content of the water.

In addition, bacteria from animal waste can enter into drinking water and cause illness and death.



Residential Pollution

Stormwater runoff from residential property may include fertilizers, weed killer, grass clippings and leaves, pet waste, pollution from poorly maintained septic systems, household cleaners, and detergents from washing your car.

Fertilizers and detergents can cause plant and algae growth in creeks and streams, thus depleting the water's oxygen and endangering

water's oxygen content. Runoff containing pet droppings and septic tank overflows can cause diseases by entering the drinking water and our recreation areas.

Construction Pollution

As the clearing of land for construction projects continues in the Puterbaugh Creek—Heaton Lake watershed, stormwater runoff from these sites has the potential to effect water quality within the watershed.

Undeveloped land that is cleared for construction has the potential to allow stormwater runoff from the site to carry soil and sediment to various waterbodies. This runoff from newly cleared land can effect our drinking water and the aquatic habitat in the waterbodies within the watershed.

What Can We Do to Control Non-Point Source Pollution?

Agricultural Land Use

- Don't fertilize the land before a rain storm and only use the amount of fertilizer that is needed for the crop.
- Control runoff from feedlots and barnyards so that the runoff does not enter the drinking water or other waterbodies. The runoff may be controlled with the use of silt fences or straw bales around the perimeter of the property.
- Recycle oil, antifreeze, and other chemicals from farm equipment.
- Maintain proper storage of pesticides and other

chemicals to prevent them from entering the drinking water.

Residential Land Use

- Perform regular maintenance on your septic system. This includes cleaning and removing all solids every 1-3 years.
- Plant grass or plants in exposed soil areas.
- Properly dispose of pet waste.
- Use commercial car washes to clean your vehicle.
- Keep the roadways clear of grass clippings, leaves, and debris.



Construction Land Use

- Control runoff from construction with Best Management Practices (BMP's). These include the use of silt fences around the perimeter of the site and the use of vegetative buffers along waterbodies to filter stormwater runoff.
- Perform construction in phases to reduce the length of time that the soil is exposed.
- Install gravel entrances to construction sites to remove dirt from construction vehicles that enter and leave the site.



- Contact the Elkhart County Soil and Water Conservation District for additional information regarding construction BMP's.

For more Information check out these websites:

EPA Surf Your Watershed:

www.epa.gov/surf

St. Joseph River Basin Commission

www.sjrbc.com

IDEM-Office of Water Quality

www.in.gov/idem/water

Elkhart County, Indiana

Heaton Lake Watershed

Indiana / Michigan State Line

Word Search Puzzle

W	A	T	E	R	S	H	E	D	A	S	D	F	G	H	W	Y	U	J	A
A	B	H	Q	W	T	E	R	T	R	Y	U	I	O	P	I	A	S	B	D
O	P	E	Z	X	O	C	V	B	N	A	M	L	K	J	L	H	C	G	F
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G	C	L	F	T	T	R	E	D	X	Z	S	G	E	W	E	Q	A	Z	A
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B	V	C	X	Z	A	S	D	P	F	G	H	J	K	L	P	O	I	U	N
X	Z	A	A	S	D	F	O	G	H	J	K	L	Q	W	E	R	T	Y	U
C	V	B	N	M	P	L	O	I	U	Y	T	R	E	R	E	W	Q	A	R
B	N	M	L	K	L	J	H	R	A	I	N	F	A	L	L	G	F	D	S
Q	W	E	R	U	T	Y	U	I	O	P	L	K	J	H	K	G	F	D	S
J	B	V	T	V	F	G	Y	H	J	I	K	M	N	B	V	H	C	X	A
R	M	I	L	K	J	H	S	M	R	A	F	B	C	V	H	Y	A	U	U
F	O	V	B	G	R	Q	W	E	R	T	Y	U	I	O	P	K	J	R	H
N	Z	X	C	V	B	N	M	Q	W	E	R	T	Y	U	I	O	P	L	T

Watershed

Rainfall

Creek

Drainage

Heaton Lake

Runoff

Elkhart

Farms

Pollution

Wildlife

Stormwater

Basins

Elkhart County Commissioners

December 15, 2004
Public Meeting

Press Release

Elkhart County Commissioners Puterbaugh Creek - Heaton Lake
Watershed Management Plan

Elkhart County Commissioners have received a \$60,000 Federal Fiscal Year 2002 205(j) Water Quality Planning Grant from the US Environmental Protection Agency for the development of a Watershed Management Plan for the Puterbaugh Creek - Heaton Lake Watershed. The Puterbaugh Creek - Heaton Lake Watershed encompasses an area of approximately 17 square miles. Its northern boundary extends into the State of Michigan and south to include the Heaton Lake and Puterbaugh Creek. This watershed study area encompasses nearly all of Osolo Township and the western portion of Washington Township.

A Joint Stakeholder Meeting is scheduled for 6:30 PM on Wednesday, December 15, 2004 at Eastwood Elementary School located at 53215 CR 15 North, Elkhart, Indiana. The purpose of the meeting is to inform the public about the Watershed Management Plan Project and invite participation in the Watershed Planning process.

Questions concerning this meeting should be directed to Mr. Christopher J. Jeter at Lawson-Fisher Associates (574) 234-3167 or Ms. Kristine Krueger at the Elkhart County Commissioners Office (574) 535-6746.

Welcome Guest.

Log



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Local News

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Local Digest

Published: Tuesday, December 14, 2004 -- The Truth, A3
Last updated: 12/14/2004 12:00:17 AM

Plymouth pumps read \$1.42

Plymouth is still a good place to stop for gas if you're heading south or west.

The price at a Citgo station off the U.S. 30 Bypass was \$1.42 a gallon, a Patroller reported.

A little farther south, Columbus stations had gas for \$1.54 and \$1.55, while on the south side of Indianapolis a Citgo station and a Marathon station were selling gas for \$1.61 a gallon.

But, if you're not going anywhere, local prices to watch for include \$1.67 at the Marathon at Main and Mishawaka Road, the Citgo at U.S. 33 and C.R. 13 and the Meijer station on Elkhart Road in Goshen.

The Phillips 66 and Citgo on South Main in Elkhart had gas for \$1.68 Monday, as did the Citgo at Beardsley and Johnson.

The price at the Clark station on Bristol in Elkhart was \$1.69. That price was also good at the Phillips station on Lincoln Way in Osceola.

Cheaper or not, let Pump Patrol know the prices you see.

Call 296-5979 and leave a message.

Goshen: Environmental fee increase vote set by board

GOSHEN -- Elkhart County's Board of Health is expected to vote on proposed increases for environmental service fees at a special 5:30 p.m. Wednesday meeting in the County Office Building, 117 N. Second St., Room 104.

If final approval is given, the changes then must be passed by the county commissioners before becoming law.

If approved, the fees, which last increased in 1998, will equal about 50 percent of the Elkhart County Health Department's cost to provide the public services. Proposed fees include \$145 for a permit on new residential and commercial septic systems; \$150 for food service permits on full-service establishments; and \$90 for commercial swimming pool licenses.

Jimtown: Trosper retiring as high school principal

JIMTOWN -- Floyd Trosper, principal at Jimtown High School, is retiring at the end of this

Today's News

- » [Bayer plant closing](#)
- » [Weighing In](#)
- » [Parents, schools team up](#)
- » [Crowd favors Central](#)
- » [Reeves jury to decide](#)
- » [Meeting addresses health of minorities](#)
- » [Wellfield garden has director](#)
- » [Local Digest](#)
- » [Where's fall?](#)
- » [Government At A Glance](#)
- » [Eatery damaged by fire](#)

Week's Most Popular

- » [Boarding house operated illegally](#)
- » [Family, friends mourn](#)
- » [The road untraveled](#)
- » [Before it's too late](#)
- » [Strong takes stand](#)

school year.

The announcement was made at Monday's Baugo School Board meeting.

Board members approved Trosper's retirement.

Before serving as principal, Trosper was a football, track and wrestling coach with Baugo Schools.

Goshen: City will try curbside recycling plan

GOSHEN -- The city will likely try another curbside recycling pilot program this spring, Mayor Allan Kauffman said Monday.

"There are a couple city council members who are pushing for it, and I'm willing to investigate it," he said. Curbside recycling was last tried in a 1992 pilot program, and a citywide program was estimated to cost \$100,000.

Now, there could be enough recycling interest to justify a program, but another study is needed, Kauffman said. He doesn't know yet how much a pilot program would cost or where the money would come from.

Elkhart: Information on watershed to be presented

ELKHART -- More information about the Heaton Lake and Puterbaugh Creek watershed will be presented at a 6:30 p.m. Wednesday meeting at Eastwood Elementary School, 53215 C.R. 15.

Officials are developing plans for managing the quality of the watershed, which covers 17 square miles in Osolo and Washington townships and southern Cass County in Michigan.

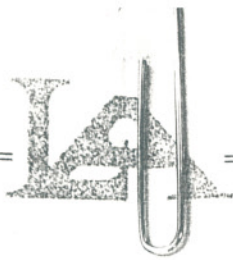
For more information about the process call Christopher Jeter of Lawson-Fisher Associates at 234-3167 or Kris Krueger, Elkhart County government's grant specialist, at 535-6746.

The Way We Were/Dave Overton 1979: "The federal Office for Civil Rights has begun a second investigation of the Elkhart Community Schools in regards to the length of the school day for handicapped students."

1954: "Stores in the Elkhart business district will remain open Friday and Saturday nights until 8:30 and next week through Thursday night. However, the stores will close at the usual time of 5 o'clock Friday, Christmas Eve. Keith Mineger, manager of Browning Bus Lines, said city bus service will be maintained on the usual Monday night schedule each evening the stores are open."

1929: "The Sturdy Manufacturing Co., which has been operating for some time in the old General Manufacturing Co. plant at Richmond and McDonald streets, is to move to Sturgis, Mich., where it will occupy the former plant of the Sturgis Go-cart Co., it was announced today by B.L. Gray, head of the company."

1904: "After nearly 31 years in the transfer business in Elkhart, David D. Carpenter sold his dray line yesterday to Eli and Carl Coleman, the former proprietors of the Coleman Ice Co."



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JOHN E. FISHER, P.E.

GREGORY L. HOLDEN, P.E.
PAUL A. HUMMEL, P.E.

200406.00

JOHN A. MIDDLETON, P.E.
PIPER C. TITTLE, P.E.
THOMAS S. SHARP, P.E.
THERESA E. HARRISON, P.E.
JON E. RIEMKE, P.E.
JEFFREY L. MCKEAN, P.E.
RANDOLPH J. LINDLEY, P.E.
SKY K. MEDORS, P.E.
➤ CHRISTOPHER J. JETER, P.E.
DENNIS A. ZEBELL, P.E.
BENJAMIN P. HOLDEN, P.E.
DAN G. DELGADO, P.E.
MARK H. FOSTER, P.E.
CHARLES E. FARRELL, P.E.
MICHAEL J. GUZIK, P.E.
MICHAEL E. JOHNSTON, P.E.

November 29, 2004

Ms. Nancy Brown, Program Manager
Elkhart County SWCD
17746-B C.R. 34
Goshen, IN 46528

RE: Elkhart County Commissioners
Section 205(j) Watershed Management Plan Grant
Puterbaugh Creek – Heaton Lake Watershed
Watershed Steering Committee Meeting

Dear Ms. Brown:

The following letter is to inform you that a Watershed Steering Committee Meeting is scheduled for the above referenced project. The meeting is scheduled for 6:30 P.M. on Wednesday, December 15, 2004, at Eastwood Elementary School located at 53215 County Road 15 North, Elkhart, Indiana. The purpose of the meeting is to inform the public about the Watershed Management Plan Project and invite participation in the Watershed Planning process.

Please do not hesitate to contact us should you have any questions or comments.

Very truly yours,

LAWSON-FISHER ASSOCIATES P.C.

Christopher J. Jeter, P.E.
Civil Engineer

CJJ/bsa

c: Kristine Krueger
John E. Fisher, P.E.
Piper C. Tittle, P.E.

**Elkhart County Commissioners
Section 205(j) Watershed Management Plan Grant
Puterbaugh Creek – Heaton Lake
Watershed Steering Committee Meeting**

Ms. Kristine Krueger
Elkhart County Government
117 North Second Street
Goshen, IN 46526

Mr. Robert Watkins
Elkhart County Health Department
4230 Elkhart Road
Goshen, IN 46526

Mr. John Hulewicz
Elkhart County Health Department
4230 Elkhart Road
Goshen, IN 46526

Mr. Denny Lyon
Elkhart County Surveyor's Office
4230 Elkhart Road
Goshen, IN 46526

Mr. Blake Doriot
Elkhart County Surveyor's Office
4230 Elkhart Road
Goshen, IN 46526

Mr. Steve Schweisberger
Elkhart County Surveyor's Office
4230 Elkhart Road
Goshen, IN 46526

Ms. Nancy Brown
Elkhart County SWCD
17746-B C.R. 34
Goshen, IN 46528

Ms. Bev Stevenson
Elkhart County SWCD
17746-B C.R. 34
Goshen, IN 46528

Mr. Donald Parker
2101 Grant Street
Elkhart, IN 46514

Mr. Everett Lienhart
22541 Lakeshore Drive
Elkhart, IN 46514

Mr. Scott Robinia
22880 Lakeshore Drive
Elkhart, IN 46514

Mr. Bill West
23170 Heaton Vista
Elkhart, IN 46514

Ms. Bonnie Shanholt
23197 Heaton Vista
Elkhart, IN 46514

Mr. Don West
52352 C.R. 13
Elkhart, IN

Mary Sproull
23173 Heaton Vista
Elkhart, IN 46514

Mr. James Riley
22886 Lake Shore Drive
Elkhart, IN 46514

Mr. and Mrs. Ty Miller
29893 Olin Court
Elkhart, IN 46514

Mr. Ben Russo
25600 County Road 4
Elkhart, IN 46514

Mr. Kyle Hannon
5 Kim Court
Elkhart, IN 46514

Mr. Bob Stone
23019 Lakeshore Drive
Elkhart, IN 46514

**Elkhart County Commissioners
Section 205(j) Watershed Management Plan Grant
Puterbaugh Creek – Heaton Lake
Watershed Steering Committee Meeting**

Mr. Dave Simmons
22892 Lakeshore Drive
Elkhart, IN 46514-9571

Mr. John Hardy
54507 David Drive
Elkhart, IN 46514

Mr. and Ms. Tom Davis
52860 County Road 15
Elkhart, IN 46514

Mr. Nathan Rice, Grant Project Manager
Indiana Dept. of Environ. Mgmt.
Watershed Management Section
100 North Senate Avenue
Indianapolis, IN 46204

Mr. Maynard Good
23257 County Road 18
Goshen, IN 46528



MEMORANDUM

December 17, 2004

TO: LFA Project File 200406.00

FROM: Christopher J. Jeter, P.E.

RE: Elkhart County Commissioners
Section 205(j) Watershed Planning Grant
Puterbaugh Creek – Heaton Lake Watershed Management Plan
Stakeholder Meeting No. 3
Public Meeting No. 4

The third stakeholder meeting for the above referenced project was conducted at Eastwood Elementary School on December 15, 2004. This meeting was the fourth in a series of eight (8) public meetings being conducted for the project. Copies of the agenda, sign-in sheet and handouts are included with this memorandum.

The meeting began with an introduction and a brief overview of the watershed planning project by Mr. Chris Jeter. Mr. Jeter provided an overview of the following three (3) items:

- Project Status
- Water Quality Results
- Future Tasks

After completing the overview and project updates, the stakeholders were given an opportunity to ask questions and/or comments on the items listed above and the 205(j) project. The following items were discussed:

- Attendees were interested in obtaining 8 ½ x 11 printouts of the watershed map and sample locations.
- Attendees requested that notice for the meeting be provided earlier.
- There was an interest among the attendees for ways and directions by which they may contribute in the cleanup effort.
- There was a discussion about pig farms and cattle farms in the northern section of the watershed. It was suggested that these sites be mapped.
- There was some discussion about illicit discharges, particularly identification, enforcement, and responsibility.
- It was suggested that a sanitary survey be performed. This item was not included in the cost of the grant but may potentially be performed.
- There was a discussion about the locations of septic permits. It was suggested that Cass County Health Department in Michigan be contacted for inclusion. It was also suggested that Elkhart Health Department be contacted for additional septic data from the period of March 2004 to December 2004.
- The attendees identified the surfactant levels and E-Coli water quality numbers to be of particular interest.
- There was also a discussion about the general condition of the receiving streams. This discussion focused particularly on trash and debris.
- The Elkhart Conservation Club (John Hardy) requested brochures.
- One of the attendees mentioned that there is a junkyard somewhere along CR 15 just south of US 12 which may or not be a source of pollution. It was suggested that this be mapped.



LFA Project File 200406
December 17, 2004
Page 2

- Bob Watkins suggested sending "Stormwater & the Construction Industry" outreach materials to the local Homebuilders Association.
- There was a brief discussion on the possibility of sludge disposal being present in the watershed.
- Attendees discussed the differences between point and non-point sources of pollution as well as the difference between sanitary and stormwater discharges.
- It was suggested by the attendees that a table is needed to explain the many acronyms used.
- The next Stakeholder meeting will be conducted in late March. Lawson-Fisher Associates will be bringing some figures that show the location of septic tanks within the watershed.

CJJ/sab



**Elkhart County Commissioners
205(j) Watershed Planning Grant
Puterbaugh Creek – Heaton Lake Watershed Management Plan**

Joint Stakeholder Committee Meeting

December 15, 2004 at 6:30 P.M.

Agenda

1. Welcome and Introduction
2. Previous Stakeholder Meeting Issues
 - *Water Quality Testing*
 - *Existing Data Sources*
 - *Project Brochure and Outreach Materials*
3. Puterbaugh Creek – Heaton Lake Watershed Management Plan Project
 - *Planning Tasks*
 - *Schedule*
4. Conclusion
5. Discussion
6. Future Meetings

Elkhart County 205(j) Grant Project Water Quality Monitoring Results

Wet Weather Sample	0.98 inches		Water Quality Guidelines				6 - 9,	Varies by month		750 mg/L		5 mg/L		235 CFU/100 mL		Varies with pH and Temperature						
		No.	Sampling Location	Date	Time	Ambient Temp. (°C)	Weather Condition	pH	Water Temp. (°C)	Cond. (µS/cm)	TDS	Color	DO (mg/L)	DO (%)	E. Coli	TKN (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Orthophosphorus (mg/L)	Total Phosphorus (mg/L)	TSS (mg/L)	MBAS (Surfactants) (mg/L)
		1	Rhineheart Lateral	6/10/2004				7.72	19.2	373	190	Light Brown	6.97	75.1	11000	1.8	0.3	2.5	<0.05	0.37	35	<0.1
		2	Kindig/Kellog	6/10/2004	2:45 PM	21.7	Light Rain	7.22	21.3	210	107	Rust/Brown	1.35	15.1	1360	1.6	0.2	<0.1	<0.05	0.27	6	0.21
		3	Mather Ditch	6/10/2004	3:00 PM	21.7	Overcast	8.07	23.2	388	197	Clear	6.85	74.6	280	0.49	<0.05	<0.1	<0.05	<0.05	18	20
		4	Bishop Ditch	6/10/2004		21.7	Light Rain	7.57	20.5	361	184	Light Brown	3.88	43.8	1640	1.3	0.3	<0.1	<0.05	0.41	5	0.14
		5	Jacob Myers Ditch	6/10/2004		21.7	Overcast	7.97	21.5	385	196	Clear	7.01	79.6	360	0.99	<0.05	<0.1	<0.05	0.24	8	<0.1
		6	Puterbaugh Creek	6/10/2004	3:00 PM	21.7	Overcast	8.08	21.2	396	201	Clear	7.95	89.2	900	1.1	0.4	0.12	<0.05	0.34	2	0.12
		Duplicate	Rhineheart Lateral	6/10/2004	2:25 PM		Light Rain	7.72	19.2	373	190	Light Brown	6.97	75.1	11000	1.8	0.4	2.5	<0.05	0.26	32	0.12
		Trip Blank		6/10/2004												<1	0.72	0.2	0.23	<0.05	<0.1	<1
Wet Weather Sample	0.64 inches																					
		No.	Sampling Location	Date	Time	Ambient Temp. (°C)	Weather Condition	pH	Water Temp. (°C)	Cond. (µS/cm)	TDS	Color	DO (mg/L)	DO (%)	E. Coli	TKN (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Orthophosphorus (mg/L)	Total Phosphorus (mg/L)	TSS (mg/L)	MBAS (Surfactants) (mg/L)
		1	Rhineheart Lateral	9/16/2004	7:30 AM	21.1	Sunny	8.4	18.6	430	300	Light Brown	4.7	50.6	21400	2.4	<0.05	0.39	0.12	0.46	24	0.13
		2	Kindig/Kellog	9/16/2004	8:00 AM	21.1	Sunny	7.6	19.2	420	320	Light Brown	0.26	2.8	1540	4.4	<0.05	<0.1	0.067	0.45	29	0.27
		3	Mather Ditch	9/16/2004	8:35 AM	21.1	Sunny	8.4	23.4	420	280	Clear	8.3	97.2	68	0.34	<0.05	<0.1	0.054	0.16	1	<0.1
		4	Bishop Ditch	9/16/2004	8:15 AM	21.1	Sunny	7.8	18.1	500	330	Light Green	1.92	16.6	450	0.71	<0.05	<0.1	0.13	0.24	4	<0.1
		5	Jacob Myers Ditch	9/16/2004	8:55 AM	21.1	Sunny	8	17.6	500	310	Clear - Light Green	6.48	67.5	1100	<0.1	<0.05	0.13	0.055	0.2	<1	<0.1
		6	Puterbaugh Creek	9/16/2004	9:10 AM	21.1	Sunny	8.1	17.1	510	300	Clear - Light Green	6.98	72.8	3600	0.52	<0.05	0.18	0.054	0.22	3	<0.1
		Duplicate	Bishop Ditch	9/16/2004	8:15 AM	21.1	Sunny	7.8	18.1	480	300	Light Green	1.92	16.6	500	0.76	<0.05	<0.1	0.13	0.23	2	<0.1
		Trip Blank		9/16/2004						7.9	<2					<1	<0.1	<0.05	<0.1	<0.05	<0.05	<1
Dry Weather Sample																						
		No.	Sampling Location	Date	Time	Ambient Temp. (°C)	Weather Condition	pH	Water Temp. (°C)	Cond. (µS/cm)	TDS	Color	DO (mg/L)	DO (%)	E. Coli	TKN (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Orthophosphorus (mg/L)	Total Phosphorus (mg/L)	TSS (mg/L)	MBAS (Surfactants) (mg/L)
		1	Rhineheart Lateral	9/13/2004	9:00 AM	24.5	Sunny	8.1	14.9	580	370	Light Brown	7.27	72	700	3.2	<0.05	0.68	0.09	0.29	140	0.27
		2	Kindig/Kellog	9/13/2004	9:10 AM	24.5	Sunny	7.4	16.3	410	330	Light Brown	0.26	2.6	84	1.8	<0.05	<0.1	<0.05	0.24	8	0.27
		3	Mather Ditch	9/13/2004	9:40 AM	24.5	Sunny	8.2	22.1	410	280	Clear	9.9	113.5	11	0.23	<0.05	<0.1	<0.05	0.23	<1	0.2
		4	Bishop Ditch	9/13/2004	9:30 AM	24.5	Sunny	7.7	14.8	520	340	Yellowish - Green	1.12	10.9	230	0.62	<0.05	<0.1	0.15	0.23	2	0.1
		5	Jacob Myers Ditch	9/13/2004	9:55 AM	24.5	Sunny	8	18.3	490	310	Clear	7.04	74.8	110	0.64	<0.05	<0.1	0.07	0.28	2	<0.1
		6	Puterbaugh Creek	9/13/2004	10:10 AM	24.5	Sunny	8	16.9	500	300	Clear	7.59	78.3	280	0.43	<0.05	0.15	0.074	0.21	12	<0.1
		Duplicate	Kindig/Kellog	9/13/2004	9:10 AM	24.5	Sunny	7.4	16.3	410	330	Light Brown	0.26	2.6	56	2.8	<0.05	<0.1	<0.05	0.24	5	0.2
		Trip Blank		9/13/2004						<1	10					<1	<0.1	<0.05	<0.1	<0.05	0.13	<1
Dry Weather Sample																						
		No.	Sampling Location	Date	Time	Ambient Temp. (°C)	Weather Condition	pH	Water Temp. (°C)	Cond. (µS/cm)	TDS	Color	DO (mg/L)	DO (%)	E. Coli	TKN (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Orthophosphorus (mg/L)	Total Phosphorus (mg/L)	TSS (mg/L)	MBAS (Surfactants) (mg/L)
		1	Rhineheart Lateral	9/21/2004	7:00 AM	15.6	Sunny	8.2	10.6	590	390	Light Brown	6.86	66.5	3400	0.86	<0.05	0.46	0.07	0.16	27	0.13
		2	Kindig/Kellog	9/21/2004	7:10 AM	15.6	Sunny	8.1	12.6	430	340	Brown	1.01	9.6	126	1.7	<0.05	<0.1	0.073	0.4	12	0.38
		3	Mather Ditch	9/21/2004	7:40 AM	15.6	Sunny	8.4	18.5	420	300	Clear	8.98	95.6	32	<0.1	<0.05	<0.1	0.077	0.12	<1	0.21
		4	Bishop Ditch	9/21/2004	7:30 AM	15.6	Sunny	8	12.4	450	330	Light Brown	2.46	21.5	118	1.1	<0.05	<0.1	0.1	0.19	2	0.21
		5	Jacob Myers Ditch	9/21/2004	8:00 AM	15.6	Sunny	8.2	12.3	520	330	Light Green	7.84	73.2	580	0.22	<0.05	<0.1	0.087	0.24	1	0.16
		6	Puterbaugh Creek	9/21/2004	8:15 AM	15.6	Sunny	8.2	12.7	490	360	Clear - Light Green	8.47	79.7	420	0.34	<0.05	0.22	0.092	0.21	5	<0.1
		Duplicate	Rhineheart Lateral	9/21/2004	7:00 AM	15.6	Sunny	8.2	10.6	590	400	Light Brown	6.86	66.5	3800	0.78	<0.05	0.43	0.12	0.32	23	0.14
		Trip Blank		9/21/2004						13.7	12					<1	<0.1	<0.05	<0.1	<0.07	<0.05	<1

***March 24, 2005
Public Meeting***

Press Release

Elkhart County Commissioners Puterbaugh Creek - Heaton Lake
Watershed Management Plan

Elkhart County Commissioners have received a \$60,000 Federal Fiscal Year 2002 205(j) Water Quality Planning Grant from the US Environmental Protection Agency for the development of a Watershed Management Plan for the Puterbaugh Creek - Heaton Lake Watershed. The Puterbaugh Creek - Heaton Lake Watershed encompasses an area of approximately 17 square miles. Its northern boundary extends into the State of Michigan and south to include the Heaton Lake and Puterbaugh Creek. This watershed study area encompasses nearly all of Osolo Township and the western portion of Washington Township.

A Joint Stakeholder Meeting is scheduled for 6:30 PM on Thursday, March 24, 2005 at Eastwood Elementary School located at 53215 CR 15 North, Elkhart, Indiana. The purpose of the meeting is to inform the public about the Watershed Management Plan Project and invite participation in the Watershed Planning process.

Questions concerning this meeting should be directed to Mr. Christopher J. Jeter at Lawson-Fisher Associates (574) 234-3167 or Ms. Kristine Krueger at the Elkhart County Commissioners Office (574) 535-6746.

LAWSON-FISHER ASSOCIATES P.C.
CONSULTING ENGINEERS

525 WEST WASHINGTON AVENUE • SOUTH BEND, INDIANA 46601

SITE: <http://www.lawson-fisher.com> • E-MAIL: lfa@lawson-fisher.com

PHONE: (574) 234-3167 • FAX: (574) 236-1330

DANIEL R. LAWSON, P.E.
JOHN E. FISHER, P.E.

GREGORY L. HOLDEN, P.E.
PAUL A. HUMMEL, P.E.

200406.00

JOHN A. MIDDLETON, P.E.
PIPER C. TITTLE, P.E.
THOMAS S. SHARP, P.E.
THERESA E. HARRISON, P.E.
JON E. RIEMKE, P.E.
JEFFREY L. MCKEAN, P.E.
RANDOLPH J. LINDLEY, P.E.
SKY K. MEDORS, P.E.
→ CHRISTOPHER J. JETER, P.E.
DENNIS A. ZEBELL, P.E.
BENJAMIN P. HOLDEN, P.E.
DAN G. DELGADO, P.E.
MARK H. FOSTER, P.E.
CHARLES F. FARRELL, P.E.
MICHAEL J. GUZIK, P.E.
MICHAEL F. JOHNSTON, P.E.

March 7, 2005

Ms. Nancy Brown, Program Manager
Elkhart County SWCD
17746-B C.R. 34
Goshen, IN 46528

RE: Elkhart County Commissioners
Section 205(j) Watershed Management Plan Grant
Puterbaugh Creek – Heaton Lake Watershed
Watershed Steering Committee Meeting

Dear Ms. Brown:

The following letter is to inform you that a Watershed Steering Committee Meeting is scheduled for the above referenced project. The meeting is scheduled for 6:30 P.M. on Thursday, March 24, 2005, at Eastwood Elementary School located at 53215 County Road 15 North, Elkhart, Indiana. The purpose of the meeting is to inform the public about the Watershed Management Plan Project and invite participation in the Watershed Planning process.

Please do not hesitate to contact us should you have any questions or comments.

Very truly yours,

LAWSON-FISHER ASSOCIATES P.C.



Christopher J. Jeter, P.E.
Civil Engineer

CJJ/bsa

c: Kristine Krueger
John E. Fisher, P.E.
Piper C. Tittle, P.E.

**Elkhart County Commissioners
Section 205(j) Watershed Management Plan Grant
Puterbaugh Creek – Heaton Lake
Watershed Steering Committee Meeting
March 24, 2005**

Ms. Kristine Krueger
Elkhart County Government
117 North Second Street
Goshen, IN 46526

Mr. Robert Watkins
Elkhart County Health Department
4230 Elkhart Road
Goshen, IN 46526

Mr. John Hulewicz
Elkhart County Health Department
4230 Elkhart Road
Goshen, IN 46526

Mr. Denny Lyon
Elkhart County Surveyor's Office
4230 Elkhart Road
Goshen, IN 46526

Mr. Blake Doriot
Elkhart County Surveyor's Office
4230 Elkhart Road
Goshen, IN 46526

Mr. Steve Schweisberger
Elkhart County Surveyor's Office
4230 Elkhart Road
Goshen, IN 46526

Ms. Nancy Brown
Elkhart County SWCD
17746-B C.R. 34
Goshen, IN 46528

Ms. Bev Stevenson
Elkhart County SWCD
17746-B C.R. 34
Goshen, IN 46528

Mr. Donald Parker
2101 Grant Street
Elkhart, IN 46514

Mr. Everett Lienhart
22541 Lakeshore Drive
Elkhart, IN 46514

Mr. Scott Robinia
22880 Lakeshore Drive
Elkhart, IN 46514

Mr. Bill West
23170 Heaton Vista
Elkhart, IN 46514

Ms. Bonnie Shanholt
23197 Heaton Vista
Elkhart, IN 46514

Mr. Don West
52352 C.R. 13
Elkhart, IN

Mary Sproull
23173 Heaton Vista
Elkhart, IN 46514

Mr. James Riley
22886 Lake Shore Drive
Elkhart, IN 46514

Mr. and Mrs. Ty Miller
29893 Olin Court
Elkhart, IN 46514

Mr. Ben Russo
25600 County Road 4
Elkhart, IN 46514

Mr. Kyle Hannon
5 Kim Court
Elkhart, IN 46514

Mr. Bob Stone
23019 Lakeshore Drive
Elkhart, IN 46514

**Elkhart County Commissioners
Section 205(j) Watershed Management Plan Grant
Puterbaugh Creek – Heaton Lake
Watershed Steering Committee Meeting
March 24, 2005**

Mr. Dave Simmons
22892 Lakeshore Drive
Elkhart, IN 46514-9571

Mr. John Hardy
54507 David Drive
Elkhart, IN 46514

Mr. and Ms. Tom Davis
52860 County Road 15
Elkhart, IN 46514

Mr. Nathan Rice, Grant Project Manager
Indiana Dept. of Environ. Mgmt.
Watershed Managment Section
100 North Senate Avenue
Indianapolis, IN 46204

Mr. Maynard Good
23257 County Road 18
Goshen, IN 46528


Mr. and Mrs. Shawn Nicodemus
2600 Broadmoor Drive
Elkhart, IN 46514



MEMORANDUM

March 24, 2005

TO: LFA Project File 200406.00

FROM: Christopher J. Jeter, P.E. 

RE: Elkhart County Commissioners
Section 205(j) Watershed Planning Grant
Puterbaugh Creek – Heaton Lake Watershed Management Plan
Stakeholder Meeting No. 4
Public Meeting No. 5

The fourth stakeholder meeting for the above referenced project was conducted at Eastwood Elementary School on March 24, 2005. This meeting was the fifth in a series of eight (8) public meetings being conducted for the project. Copies of the agenda, sign-in sheet and handouts are included with this memorandum.

The meeting began with an introduction and a brief overview of the watershed planning project by Mr. Chris Jeter. Mr. Jeter provided an overview of the following three (3) items:

- Project Status
- Water Quality Results
- Future Tasks

After completing the overview and project updates, the stakeholders were given an opportunity to ask questions and/or comments on the items listed above and the 205(j) project. The following items were discussed:

- A few of the attendees were not present at the December 15, 2004 Stakeholder Meeting. Therefore, a brief overview of the water quality sampling procedures and results was presented by Mr. Jeter at this meeting as well.
- There was discussion about the dates on which the water quality sampling occurred. Some of the attendees felt that the sampling should have occurred over a greater time period instead of having three (3) of the four (4) sampling events take place in September 2004. Mr. Jeter explained that the timing of the sampling activities was strongly dependent upon the weather conditions and the water quality sampling was scheduled to occur between May 1, 2004 and October 31, 2004. In addition, Mr. Jeter explained that a wet-weather event was defined as a day of rain with expected precipitation amounts of greater than 0.5 inches and a dry-weather event was defined as at least five (5) consecutive days without rain.
- Mr. Jeter indicated that a database was obtained that contained a list of the National Pollutant Discharge Elimination System (NPDES) permits throughout the State of Michigan. Any Concentrated Animal Feeding Operation (CAFO) in the state is required to obtain an NPDES permit. The database did not contain any CAFO's in Cass County, Michigan. In addition, a GIS shapefile containing the locations of Confined Feeding Operations throughout the State of Indiana was downloaded from the Indiana Geological Survey website. This spatial data did not show any Confined Feeding Operations to be present in the Indiana portion of the watershed. A few of the attendees from the Purdue Extension and the Elkhart County Soil and Water Conservation District echoed these results by indicating that there is a limited amount of livestock present in the watershed.



- A map of the location of septic permits that were issued in Elkhart County between 1990 and 2001 was distributed to each of the attendees. Mr. Jeter indicated that the database containing the permits from 2001 to December 2004 is still in the process of being cleaned up for use in the GIS. In addition, Mr. Jeter stated that he had contacted the Cass County Health Department in Michigan and they indicated that they did not have a septic permit database.
- Some of the attendees expressed an interest in ways that they can contribute to the cleanup of the watershed. Representatives from the Elkhart County Soil and Water Conservation District suggested that these people may want to consider participating in the Hoosier Riverwatch program. Brochures outlining this program were available for the meeting attendees.
- Representatives from Lawson-Fisher and the meeting attendees had a brief discussion regarding the project brochure. Mr. Jeter summarized where the brochure had been distributed to date and he also indicated that the "Stormwater & the Construction Industry" outreach materials had been sent to the Elkhart County Homebuilders Association.
- Representatives from the Elkhart County Soil and Water Conservation District gave Mr. Jeter a copy of a memo summarizing their comments regarding the project brochure. These issues will be addressed prior to the next quarterly meeting.
- Mr. Jeter gave the attendees a brief overview of the project goals and tasks for the Heaton Lake – Puterbaugh Creek Watershed Management Plan. Mr. Jeter indicated that the portion of the Watershed Management Plan containing the Goals and Decisions is due in July 2005.
- The next Stakeholder meeting will be conducted in late June 2005. Lawson-Fisher Associates will be bringing a draft of the project Goals and Decisions for the attendees to provide comments prior to the next submittal to IDEM.



**Elkhart County Commissioners
205(j) Watershed Planning Grant
Puterbaugh Creek – Heaton Lake Watershed Management Plan**

Joint Stakeholder Committee Meeting

March 24, 2005 at 6:30 P.M.

Agenda

1. Welcome and Introduction
2. Previous Stakeholder Meeting Issues
 - *Water Quality Testing*
 - *Watershed and Sampling Location Maps*
 - *Septic Permit Locations*
 - *Project Brochure and Outreach Materials*
3. Puterbaugh Creek – Heaton Lake Watershed Management Plan Project
 - *Planning Tasks*
 - *Schedule*
4. Conclusion
5. Discussion
6. Future Meetings

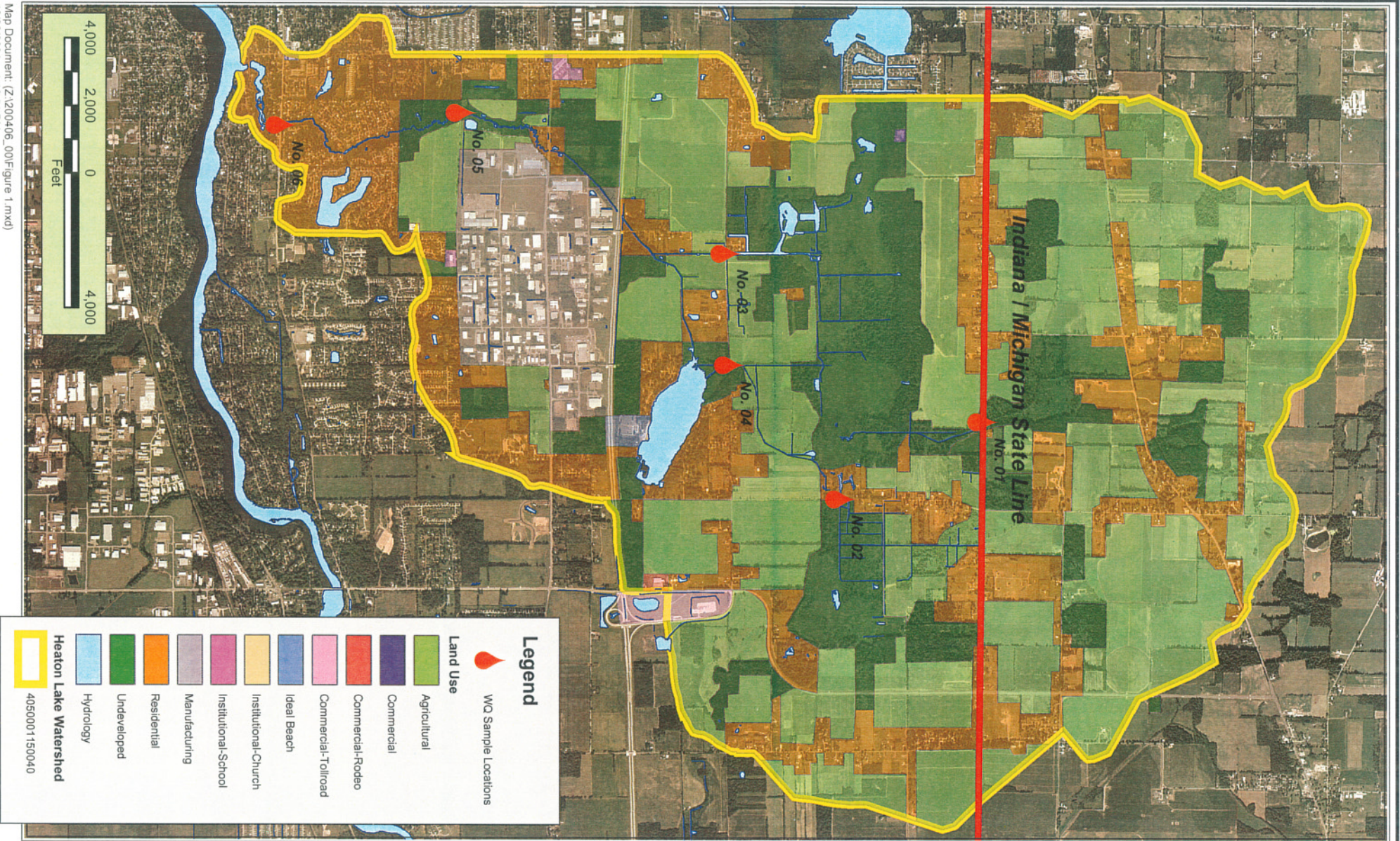
**ELKHART COUNTY COMMISSIONERS
SECTION 205(j) WATERSHED MANAGEMENT PLAN GRANT
PUTERBAUGH CREEK – HEATON LAKE WATERSHED**

Joint Stakeholder Committee Meeting

March 24, 2005 – 6:30 P.M.

SIGN-IN

[illegible]



Elkhart County 205(j) Grant
Puterbaugh Creek - Heaton Lake
Watershed Management Plan

Water Quality Sampling Locations



**LAWSON-FISHER
ASSOCIATES P.C.
CONSULTING ENGINEERS**

525 W. WASHINGTON AVENUE
SOUTH BEND, INDIANA 46601
PH. (574) 234-3167



Figure 8

200406.00

Jan. 2005

Acronyms and Abbreviations

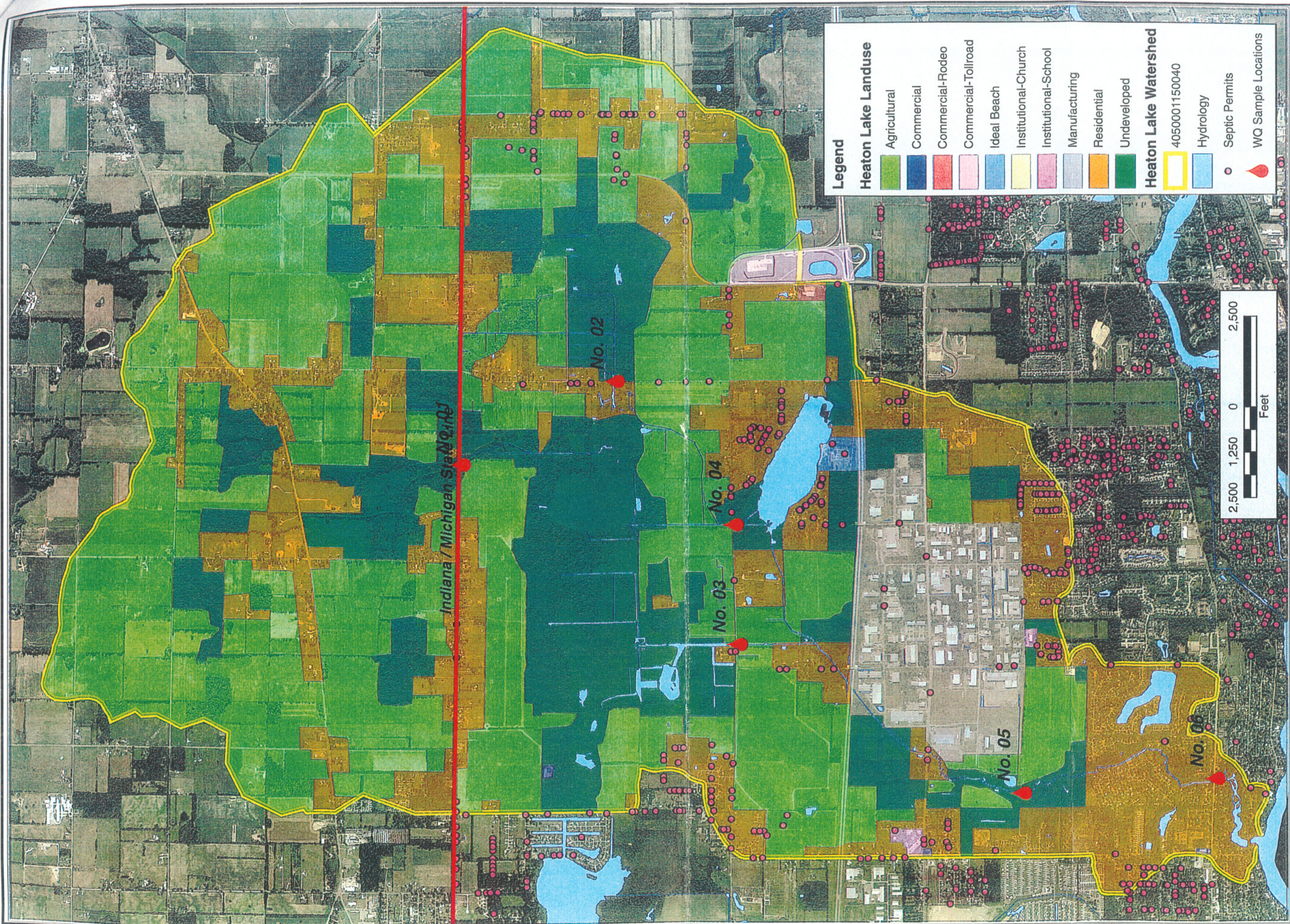
BMP – Best Management Practice
CFU – Colony Forming Units
Cond. – Conductivity
DO – Dissolved Oxygen
E. Coli – Escherchia coli
MBAS – Surfactants
Mg/L – milligrams per liter
mL – milliliters
TDS – Total Dissolved Solids
TKN – Total Kjeldahl Nitrogen
TSS – Total Suspended Solids
 μ S/cm – microsiemens per centimeter


Puterbaugh Creek – Heaton Lake Water Quality Sampling Locations

<i>Site #</i>	<i>Location</i>	<i>Stream Name</i>
1	State Line Road	Rhineheart Lateral
2	County Road 15	Kindig/Kellog
3	County Road 4	Mather Ditch
4	County Road 4	Bishop Ditch
5	County Road 106	Puterbaugh Creek
6	Bristol Street	Puterbaugh Creek

Table 9
Elkhart County 205(j) Grant Project
Water Quality Monitoring Results

Wet Weather Sample 0.98 inches		Water Quality Guidelines							6 - 9	Varies by month		750 mg/L		5 mg/L		235 CFU/100 mL		Varies with pH and Temperature					
	No.	Sampling Location	Date	Time	Ambient Temp. (°C)	Weather Condition	pH	Water Temp. (°C)	Cond. (µS/cm)	TDS	Color	DO (mg/L)	DO (%)	E. Coli	TKN (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Orthophosphorus (mg/L)	Total Phosphorus (mg/L)	TSS (mg/L)	MBAS (Surfactants) (mg/L)		
	1	Rhineheart Lateral	6/10/2004				7.72	19.2	373	190	Light Brown	6.97	75.1	11000	1.8	0.3	2.5	<0.05	0.37	35	<0.1		
	2	Kindig/Kellog	6/10/2004	2:45 PM	21.7	Light Rain	7.22	21.3	210	107	Rust/Brown	1.35	15.1	1360	1.6	0.2	<0.1	<0.05	0.27	6	0.21		
	3	Mather Ditch	6/10/2004	3:00 PM	21.7	Overcast	8.07	23.2	388	197	Clear	6.85	74.6	280	0.49	<0.05	<0.1	<0.05	<0.05	18	20		
	4	Bishop Ditch	6/10/2004		21.7	Light Rain	7.57	20.5	361	184	Light Brown	3.88	43.8	1640	1.3	0.3	<0.1	<0.05	0.41	5	0.14		
	5	Puterbaugh Creek	6/10/2004		21.7	Overcast	7.97	21.5	385	196	Clear	7.01	79.6	360	0.99	<0.05	<0.1	<0.05	0.24	8	<0.1		
	6	Puterbaugh Creek	6/10/2004	3:00 PM	21.7	Overcast	8.08	21.2	396	201	Clear	7.95	89.2	900	1.1	0.4	0.12	<0.05	0.34	2	0.12		
	Duplicate	Rhineheart Lateral	6/10/2004	2:25 PM		Light Rain	7.72	19.2	373	190	Light Brown	6.97	75.1	11000	1.8	0.4	2.5	<0.05	0.26	32	0.12		
	Trip Blank		6/10/2004												<1	0.72	0.2	0.23	<0.05	<0.1	<1	<0.1	
Wet Weather Sample 0.64 inches		Water Quality Guidelines							6 - 9	Varies by month		750 mg/L		5 mg/L		235 CFU/100 mL		Varies with pH and Temperature					
	No.	Sampling Location	Date	Time	Ambient Temp. (°C)	Weather Condition	pH	Water Temp. (°C)	Cond. (µS/cm)	TDS	Color	DO (mg/L)	DO (%)	E. Coli	TKN (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Orthophosphorus (mg/L)	Total Phosphorus (mg/L)	TSS (mg/L)	MBAS (Surfactants) (mg/L)		
	1	Rhineheart Lateral	9/16/2004	7:30 AM	21.1	Sunny	8.4	18.6	430	300	Light Brown	4.7	50.6	21400	2.4	<0.05	0.39	0.12	0.46	24	0.13		
	2	Kindig/Kellog	9/16/2004	8:00 AM	21.1	Sunny	7.6	19.2	420	320	Light Brown	0.26	2.8	1540	4.4	<0.05	<0.1	0.067	0.45	29	0.27		
	3	Mather Ditch	9/16/2004	8:35 AM	21.1	Sunny	8.4	23.4	420	280	Clear	8.3	97.2	68	0.34	<0.05	<0.1	0.054	0.16	1	<0.1		
	4	Bishop Ditch	9/16/2004	8:15 AM	21.1	Sunny	7.8	18.1	500	330	Light Green	1.92	16.6	450	0.71	<0.05	<0.1	0.13	0.24	4	<0.1		
	5	Puterbaugh Creek	9/16/2004	8:55 AM	21.1	Sunny	8	17.6	500	310	Clear - Light Green	6.48	67.5	1100	<0.1	<0.05	0.13	0.055	0.2	<1	<0.1		
	6	Puterbaugh Creek	9/16/2004	9:10 AM	21.1	Sunny	8.1	17.1	510	300	Clear - Light Green	6.98	72.8	3600	0.52	<0.05	0.18	0.054	0.22	3	<0.1		
	Duplicate	Bishop Ditch	9/16/2004	8:15 AM	21.1	Sunny	7.8	18.1	480	300	Light Green	1.92	16.6	500	0.76	<0.05	<0.1	0.13	0.23	2	<0.1		
	Trip Blank		9/16/2004						7.9	<2					<1	<0.1	<0.05	<0.1	<0.05	<0.05	<1	<0.1	
Dry Weather Sample		Water Quality Guidelines							6 - 9	Varies by month		750 mg/L		5 mg/L		235 CFU/100 mL		Varies with pH and Temperature					
	No.	Sampling Location	Date	Time	Ambient Temp. (°C)	Weather Condition	pH	Water Temp. (°C)	Cond. (µS/cm)	TDS	Color	DO (mg/L)	DO (%)	E. Coli	TKN (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Orthophosphorus (mg/L)	Total Phosphorus (mg/L)	TSS (mg/L)	MBAS (Surfactants) (mg/L)		
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	6	Puterbaugh Creek	9/13/2004	10:10 AM	24.5	Sunny	8	16.9	500	300	Clear	7.59	78.3	280	0.43	<0.05	0.15	0.074	0.21	12	<0.1		
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	Trip Blank		9/13/2004						<1	10					<1	<0.1	<0.05	<0.1	<0.05	0.13	<1	<0.1	
Dry Weather Sample		Water Quality Guidelines							6 - 9	Varies by month		750 mg/L		5 mg/L		235 CFU/100 mL		Varies with pH and Temperature					
	No.	Sampling Location	Date	Time	Ambient Temp. (°C)	Weather Condition	pH	Water Temp. (°C)	Cond. (µS/cm)	TDS	Color	DO (mg/L)	DO (%)	E. Coli	TKN (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Orthophosphorus (mg/L)	Total Phosphorus (mg/L)	TSS (mg/L)	MBAS (Surfactants) (mg/L)		
	1	Rhineheart Lateral	9/21/2004	7:00 AM	15.6	Sunny	8.2	10.6	590	390	Light Brown	6.86	66.5	3400	0.86	<0.05	0.46	0.07	0.16	27	0.13		
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	4	Bishop Ditch	9/21/2004	7:30 AM	15.6	Sunny	8	12.4	450	330	Light Brown	2.46	21.5	118	1.1	<0.05	<0.1	0.1	0.19	2	0.21		
	5	Puterbaugh Creek	9/21/2004	8:00 AM	15.6	Sunny	8.2	12.3	520	330	Light Green	7.84	73.2	580	0.22	<0.05	<0.1	0.087	0.24	1	0.16		
	6	Puterbaugh Creek	9/21/2004	8:15 AM	15.6	Sunny	8.2	12.7	490	360	Clear - Light Green	8.47	79.7	420	0.34	<0.05	0.22	0.092	0.21	5	<0.1		
	Duplicate	Rhineheart Lateral	9/21/2004	7:00 AM	15.6	Sunny	8.2	10.6	590	400	Light Brown	6.86	66.5	3800	0.78	<0.05	0.43	0.12	0.32	23	0.14		
	Trip Blank		9/21/2004						13.7	12					<1	<0.1	<0.05	<0.1	<0.07	<0.05	<1	<0.1	



LAWSON-FISHER ASSOCIATES P.C. CONSULTING ENGINEERS 525 W. WASHINGTON AVENUE SOUTH BEND, INDIANA 46601 PH. (574) 234-3167		Figure 5	200406	March 2005
			Elkhart County 205(j) Grant Puterbaugh Creek - Heaton Lake Watershed Management Plan	
Land Use Map				

***June 30, 2005
Public Meeting***

Press Release

Elkhart County Commissioners Puterbaugh Creek - Heaton Lake
Watershed Management Plan

Elkhart County Commissioners have received a \$60,000 Federal Fiscal Year 2002 205(j) Water Quality Planning Grant from the US Environmental Protection Agency for the development of a Watershed Management Plan for the Puterbaugh Creek - Heaton Lake Watershed. The Puterbaugh Creek - Heaton Lake Watershed encompasses an area of approximately 17 square miles. Its northern boundary extends into the State of Michigan and south to include the Heaton Lake and Puterbaugh Creek. This watershed study area encompasses nearly all of Osolo Township and the western portion of Washington Township.

A Joint Stakeholder Meeting is scheduled for 6:30 PM on Thursday, June 30, 2005 at the Osolo Township Emergency Medical Services (EMS) building located at 25600 CR 4, Elkhart, Indiana. The purpose of the meeting is to inform the public about the Watershed Management Plan Project and invite participation in the Watershed Planning process.

Questions concerning this meeting should be directed to Mr. Christopher J. Jeter at Lawson-Fisher Associates (574) 234-3167 or Ms. Kristine Krueger at the Elkhart County Commissioners Office (574) 535-6746.



LAWSON-FISHER ASSOCIATES P.C.
CONSULTING ENGINEERS

525 WEST WASHINGTON AVENUE • SOUTH BEND, INDIANA 46601

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PHONE: (574) 234-3167 • FAX: (574) 236-1330

DANIEL R. LAWSON, P.E.
JOHN E. FISHER, P.E.

GREGORY L. HOLDEN, P.E.
PAUL A. HUMMEL, P.E.

200406.00

JOHN A. MIDDLETON, P.E.
PIPER C. TITTLE, P.E.
THOMAS S. SHARP, P.E.
THERESA E. HARRISON, P.E.
JON E. RIEMKE, P.E.
JEFFREY L. MCKEAN, P.E.
RANDOLPH J. LINDLEY, P.E.
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CHRISTOPHER J. JETER, P.E.
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BENJAMIN F. HOLDEN, P.E.
DAN G. DELGADO, P.E.
MARK H. FOSTER, P.E.
CHARLES F. FARRELL, P.E.
MICHAEL J. GUZIK, P.E.
MICHAEL F. JOHNSTON, P.E.

June 15, 2005

Ms. Nancy Brown, Program Manager
Elkhart County SWCD
17746-B C.R. 34
Goshen, IN 46528

RE: Elkhart County Commissioners
Section 205(j) Watershed Management Plan Grant
Puterbaugh Creek – Heaton Lake Watershed
Watershed Steering Committee Meeting

Dear Ms. Brown:

This letter is to inform you that a Watershed Steering Committee Meeting is scheduled for the above referenced project. The meeting is scheduled for 6:30 P.M. on Thursday, June 30, 2005, at the Osolo Township Emergency Medical Services (EMS) building located at 25600 County Road 4, Elkhart, Indiana. The purpose of the meeting is to inform the public about the Watershed Management Plan Project and invite participation in the Watershed Planning process.

Please do not hesitate to contact us should you have any questions or comments.

Very truly yours,

LAWSON-FISHER ASSOCIATES P.C.

Christopher J. Jeter, P.E.
Civil Engineer

CJJ/bsa

c: Kristine Krueger
John E. Fisher, P.E., F.ASCE
Piper C. Tittle, P.E.

**Elkhart County Commissioners
Section 205(j) Watershed Management Plan Grant
Puterbaugh Creek – Heaton Lake
Watershed Steering Committee Meeting
June 30, 2005**

Ms. Nancy Brown, Program Manager
Elkhart County SWCD
17746-B C.R. 34
Goshen, IN 46528

Mr. Jeff Burbrink
Purdue University Co-op Extension Service
Elkhart County Office
Elkhart County 4-H Fairgrounds
17746-E C.R. 34
Goshen, IN 46528-6898

Mr. and Ms. Tom Davis
52860 County Road 15
Elkhart, IN 46514

Mr. Blake Doriot
Elkhart County Surveyor's Office
4230 Elkhart Road
Goshen, IN 46526

Mr. Maynard Good
23257 County Road 18
Goshen, IN 46528

Mr. Kyle Hannon
5 Kim Court
Elkhart, IN 46514

Mr. John Hardy
54507 David Drive
Elkhart, IN 46514

Mr. John Hulewicz
Elkhart County Health Department
4230 Elkhart Road
Goshen, IN 46526

Mr. Kelly Kielce
22874 Lake Shore Drive
Elkhart, IN 46514

Ms. Kristine Krueger
Elkhart County Government
117 North Second Street
Goshen, IN 46526

Mr. Eric Kurtz
Elkhart County SWCD
17746-B C.R. 34
Goshen, IN 46528

Mr. Everett Lienhart
22541 Lakeshore Drive
Elkhart, IN 46514

Mr. Denny Lyon, Drainage Technician
Elkhart County Surveyor's Office
4230 Elkhart Road
Goshen, IN 46526

Mr. and Ms. Ty Miller
29893 Olin Court
Elkhart, IN 46514

Mr. and Mrs. Shawn Nicodemus
2600 Broadmoor Drive
Elkhart, Indiana 46514

Mr. Donald Parker
2101 Grant Street
Elkhart, IN 46514

Mr. Nathan Rice, Grant Project Manager
Indiana Dept. of Environ. Mgmt.
Watershed Management Section
100 North Senate Avenue
Indianapolis, IN 46204

Mr. James Riley
22886 Lakeshore Drive
Elkhart, IN 46514

**Elkhart County Commissioners
Section 205(j) Watershed Management Plan Grant
Puterbaugh Creek – Heaton Lake
Watershed Steering Committee Meeting
June 30, 2005**

Mr. Scott Robinia
22880 Lakeshore Drive
Elkhart, IN 46514

Mr. Bill West
51023 C.R. 25
Bristol, IN 46507

Mr. Ben Russo
25600 County Road 4
Elkhart, IN 46514

Mr. Steve Schweisberger
Elkhart County Surveyor's Office
4230 Elkhart Road
Goshen, IN 46526

Ms. Bonnie Shanholt
23197 Heaton Vista
Elkhart, IN 46514

Mr. Dave Simmons
22892 Lakeshore Drive
Elkhart, IN 46514

Ms. Mary Sproull
23173 Heaton Vista
Elkhart, IN 46514

Ms. Bev Stevenson
Elkhart County SWCD
17746-B C.R. 34
Goshen, IN 46528

Mr. Bob Stone
23019 Lakeshore Drive
Elkhart, IN 46514

Mr. Robert Watkins
Elkhart County Health Department
4230 Elkhart Road
Goshen, IN 46526

Mr. Don West
52352 C.R. 13
Elkhart, IN 46514



MEMORANDUM

July 7, 2005

TO: LFA Project File 200406.00

FROM: Christopher J. Jeter, P.E. *Chris J. Jeter*

RE: Elkhart County Commissioners
Section 205(j) Watershed Planning Grant
Puterbaugh Creek – Heaton Lake Watershed Management Plan
Stakeholder Meeting No. 5
Public Meeting No. 6

The fifth Stakeholder Meeting for the above referenced project was conducted at the Osolo Township Emergency Medical Services (EMS) Building on June 30, 2005. This meeting was the sixth in a series of eight (8) public meetings being conducted for the project. Copies of the agenda, sign-in sheet and handouts are included with this memorandum.

The meeting began with an introduction and a brief overview of the watershed planning project by Mr. Chris Jeter, Lawson-Fisher Associates P.C. Mr. Jeter provided an overview of the following two (2) previous stakeholder meeting items:

- Septic Permit Locations
- Project Brochure and Outreach Materials

The overview of the previous meeting's issues consisted of distributing a figure showing the Puterbaugh Creek – Heaton Lake Watershed with an updated location of the septic permits that were issued between 1990 and 2004 and discussing some of the revisions that were made to the project brochure.

After completing the overview and project updates, Mr. Jeter presented the proposed Goals and Decisions for the project. Throughout this presentation, the stakeholders were given an opportunity to ask questions and/or provide comments on the Goals and Decisions along with the 205(j) Project. The following items were discussed:

- A few of the attendees indicated that two subdivisions are being constructed within the watershed that are going to be serviced by wells and septic systems. These subdivisions are located near County Road 11 and the Indiana/Michigan state line and near Eastside School.
- A representative from the Elkhart County Surveyor's Office indicated that a brush clearing project is scheduled along the west side of Bishop Ditch.
- Mr. Jeter indicated that he would be contacting the Elkhart County Health Department to schedule a sanitary survey for a portion of a few select streams in the watershed.



LFA Project File 200406.00

July 7, 2005

Page 2

- One of the attendees provided some history of the watershed with respect to the lake and stream normal water surface elevations. He indicated that the legal lake level of Simonton Lake (located directly west of the Puterbaugh Creek – Heaton Lake Watershed) is approximately 5-feet higher than Simonton Lake. In addition, he indicated that the normal stream level of Mather Ditch is approximately 1-foot higher than the legal lake level of Simonton Lake.
- One of the goals for the project will be to remove the surfactants that were detected in Mather Ditch on the north side of County Road 4. One of the attendees noted that he has never seen any grey water in Mather Ditch. This has led him to speculate that the homeowners adjacent to Mather Ditch may be connecting the outlet of their washer directly to their floor drain and then discharging into the ditch.
- One of the attendees noted that a Heaton Lake resident has been collecting samples in Heaton Lake as part of the Hoosier Riverwatch Program.
- A representative from the Elkhart County Soil and Water Conservation District noted that training for the Hoosier Riverwatch Program will be offered on September 23, 2005 in Elkhart County.
- A few of the attendees asked Mr. Jeter to investigate a bog located north of County Road 4 and west of County Road 15 as a potential pollutant source.
- Some of the stakeholders indicated that the list of Goals that Mr. Jeter outlined for the project may be somewhat aggressive. The stakeholders felt that two to three goals should be identified and those goals would then be focused upon. A representative from IDEM indicated that a number of goals could be listed in the final report along with a goal prioritization.
- The next Stakeholder Meeting will be conducted in September, 2005. Lawson-Fisher Associates personnel will be discussing the timetable for the project goals in preparation of the draft submittal of the Watershed Management Plan.



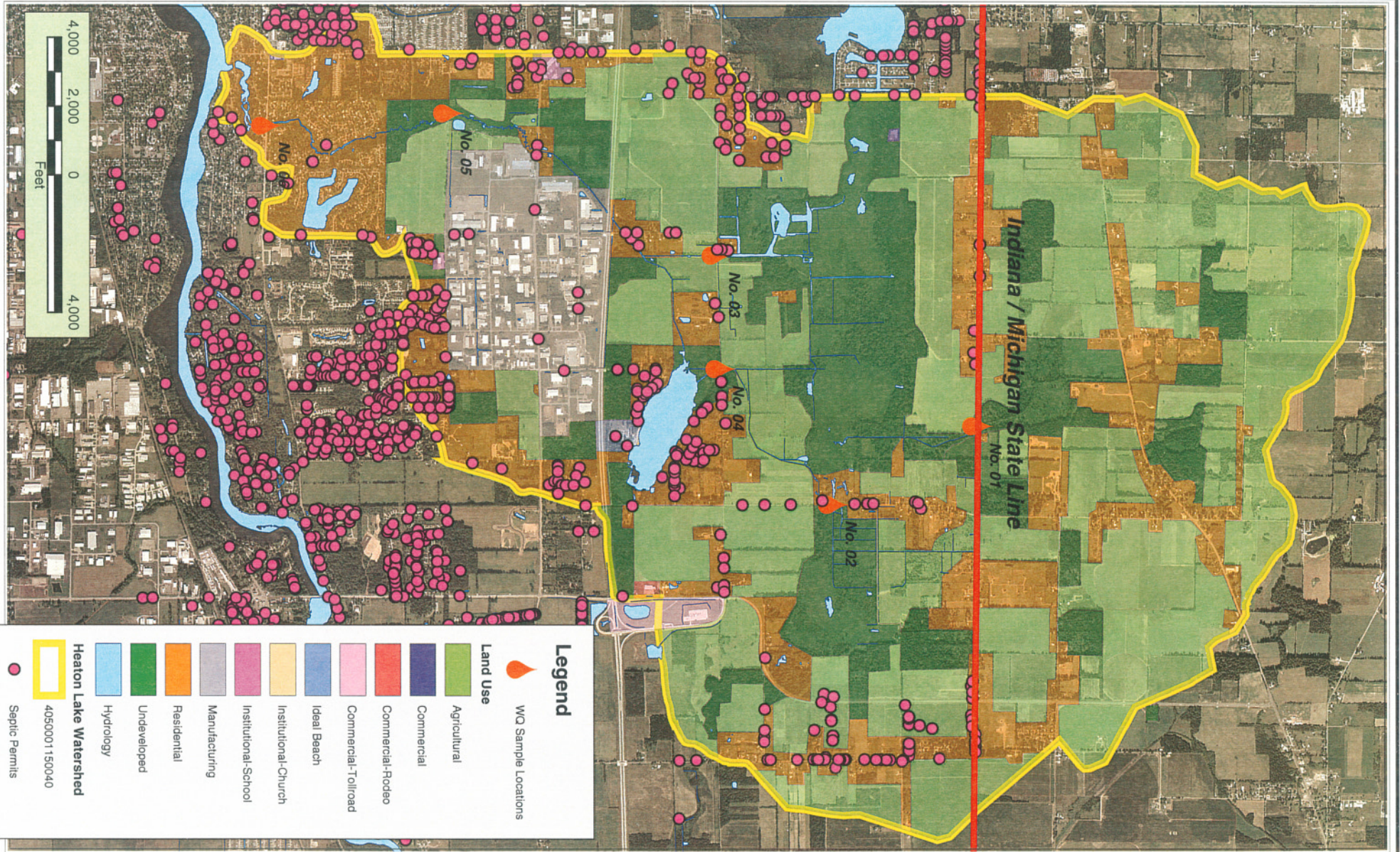
**Elkhart County Commissioners
205(j) Watershed Planning Grant
Puterbaugh Creek – Heaton Lake Watershed Management Plan**

Joint Stakeholder Committee Meeting

June 30, 2005 at 6:30 P.M.

Agenda

1. Welcome and Introduction
2. Previous Stakeholder Meeting Issues
 - *Septic Permit Locations*
 - *Project Brochure and Outreach Materials*
3. Puterbaugh Creek – Heaton Lake Watershed Management Plan Project
 - *Planning Tasks*
 - *Schedule*
4. Conclusion
5. Discussion
6. Future Meetings



**LAWSON-FISHER
ASSOCIATES P.C.
CONSULTING ENGINEERS**

525 W. WASHINGTON AVENUE
SOUTH BEND, INDIANA 46601
PH. (574) 234-3167



Elkhart County 205(j) Grant
Puterbaugh Creek - Heaton Lake
Watershed Management Plan

Water Quality Sampling
and Septic Permit Locations

200406.00

June 2005

Puterbaugh Creek - Heaton Lake Watershed Management Plan

6/28/2005

June 2005 Quarterly Meeting

1

Introduction

- ♦ Christopher J. Jeter, P.E.
Lawson-Fisher Associates P.C.
525 West Washington Avenue
South Bend, IN 46601
phone: 574-236-1320 x 144
email: cjeter@lawson-fisher.com

6/28/2005

June 2005 Quarterly Meeting

2

Meeting Agenda Items

- ♦ Review past meeting issues
 - Pollutant sources and stressors
 - Identification of critical areas
- ♦ Goals and action items

6/28/2005

June 2005 Quarterly Meeting

3

Pollutant Sources and Stressors

- ♦ Failing on-site septic systems
 - High levels of E. Coli
 - Indicator of human or animal wastes
 - Elevated levels of surfactants
 - Indicates potential presence of domestic waste (soaps, detergents)

6/28/2005

June 2005 Quarterly Meeting

4

Pollutant Sources and Stressors (Cont'd):

- ♦ Direct discharge of septic tank effluent
 - Poor soils – potential direct discharge
 - Sanitary survey

6/28/2005

June 2005 Quarterly Meeting

5

Pollutant Sources and Stressors (Cont'd):

- ♦ Increased development
 - Residential
 - Construction practices
 - Increased traffic
- ♦ Agricultural practices
 - Significant portion of watershed

6/28/2005

June 2005 Quarterly Meeting

6

Identification of Critical Areas

- ♦ Rhineheart Lateral
 - Near State Line Road
 - Highest levels of E. Coli during 4 sampling events
 - Highest levels of Nitrates and Total Suspended Solids (TSS)

-
-
-
-
-
-

Identification of Critical Areas (Cont'd):

- ♦ Kindig/Kellog (C.R. 15) and Bishop Ditch (C.R. 4)
 - Low dissolved oxygen (DO) levels
 - Kindig/Kellog drains directly to Bishop Ditch

-
-
-
-
-
-

Identification of Critical Areas (Cont'd):

- ♦ Mather Ditch
 - Sampled at C.R. 4
 - High surfactant levels
 - Residences located upstream

-
-
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-
-
-

Goals and Action Items

- ♦ Goal #1: Reduce E. Coli, nitrates, and TSS in Rhineheart Lateral
 - Cooperation between Elkhart County and Cass County, MI
 - Sanitary survey
 - Dye testing (residential)
 - Agricultural field tiles
 - Eliminate source (ECHD)

6/28/2005

June 2005 Quarterly Meeting

10

Goals and Action Items (Cont'd):

- ♦ Goal #2: Reduce surfactant levels in Mather Ditch
 - Sanitary survey – LFA and ECHD – July 2005
 - Photograph and GPS locations of potential pollutant sources
 - Eliminate source (ECHD)

6/28/2005

June 2005 Quarterly Meeting

11

Goals and Action Items (Cont'd):

- ♦ Goal #3: Explore methods to plan, construct, operate, maintain, and finance public wastewater system
 - Funding sources (SRF funding; USDA Rural Community Assistance Program)
 - Lower portion of watershed (adjacent to the City of Elkhart)

6/28/2005

June 2005 Quarterly Meeting

12

Goals and Action Items (Cont'd):

- ♦ Goal #7: Identify a Watershed Coordinator
 - Implementation of watershed plan
 - Continue public education
 - Point of contact for watershed specific issues

-
-
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-

Goals and Action Items (Cont'd):

- ♦ Goal #8: Work with other watershed groups
 - St. Joseph River Basin Steering Committee Meetings

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-
-
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-

Questions or Comments?

- ◆ Additional goals

6/28/2005 June 2005 Quarterly Meeting 18

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-

***October 6, 2005
Public Meeting***

Press Release

Elkhart County Commissioners Puterbaugh Creek - Heaton Lake
Watershed Management Plan

Elkhart County Commissioners have received a \$60,000 Federal Fiscal Year 2002 205(j) Water Quality Planning Grant from the US Environmental Protection Agency for the development of a Watershed Management Plan for the Puterbaugh Creek - Heaton Lake Watershed. The Puterbaugh Creek - Heaton Lake Watershed encompasses an area of approximately 17 square miles. Its northern boundary extends into the State of Michigan and south to include the Heaton Lake and Puterbaugh Creek. This watershed study area encompasses nearly all of Osolo Township and the western portion of Washington Township.

A Joint Stakeholder Meeting is scheduled for 6:00 PM on Thursday, October 6, 2005 at Eastwood Elementary School located at 53215 CR 15 North, Elkhart, Indiana. The purpose of the meeting is to inform the public about the Watershed Management Plan Project and invite participation in the Watershed Planning process.

Questions concerning this meeting should be directed to Mr. Christopher J. Jeter at Lawson-Fisher Associates (574) 234-3167 or Ms. Kristine Krueger at the Elkhart County Commissioners Office (574) 535-6746.



LAWSON-FISHER ASSOCIATES P.C.
CONSULTING ENGINEERS

525 WEST WASHINGTON AVENUE • SOUTH BEND, INDIANA 46601

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PHONE: (574) 234-3167 • FAX: (574) 236-1330

DANIEL R. LAWSON, P.E.
JOHN E. FISHER, P.E.

GREGORY L. HOLDEN, P.E.
PAUL A. HUMMEL, P.E.

200406.00

JOHN A. MIDDLETON, P.E.
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THOMAS S. SHARP, P.E.
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JON E. RIEMKE, P.E.
JEFFREY L. McKEAN, P.E.
RANDOLPH J. LINDLEY, P.E.
SKY K. MEDORS, P.E.
➤ CHRISTOPHER J. JETER, P.E.
DENNIS A. ZEBELL, P.E.
BENJAMIN P. HOLDEN, P.E.
DAN G. DELGADO, P.E.
MARK H. FOSTER, P.E.
CHARLES F. FARRELL, P.E.
MICHAEL J. GUZIK, P.E.
MICHAEL F. JOHNSTON, P.E.

September 26, 2005

Ms. Nancy Brown, Program Manager
Elkhart County SWCD
17746-B C.R. 34
Goshen, IN 46528

RE: Elkhart County Commissioners
Section 205(j) Watershed Management Plan Grant
Puterbaugh Creek – Heaton Lake Watershed
Watershed Steering Committee Meeting

Dear Ms. Brown:

The following letter is to inform you that a Watershed Steering Committee Meeting is scheduled for the above referenced project. The meeting is scheduled for 6:00 P.M. on Thursday, October 6, 2005, at Eastwood Elementary School located at 53215 County Road 15 North, Elkhart, Indiana. The purpose of the meeting is to inform the public about the Watershed Management Plan Project and invite participation in the Watershed Planning process.

Please do not hesitate to contact us should you have any questions or comments.

Very truly yours,

LAWSON-FISHER ASSOCIATES P.C.

Christopher J. Jeter, P.E.
Civil Engineer

CJJ/bsa

c: Kristine Krueger
John E. Fisher, P.E.
Piper C. Tittle, P.E.

**Elkhart County Commissioners
Section 205(j) Watershed Management Plan Grant
Puterbaugh Creek – Heaton Lake
Watershed Steering Committee Meeting
October 6, 2005**

Ms. Kristine Krueger
Elkhart County Government
117 North Second Street
Goshen, IN 46526

Mr. Robert Watkins
Elkhart County Health Department
4230 Elkhart Road
Goshen, IN 46526

Mr. John Hulewicz
Elkhart County Health Department
4230 Elkhart Road
Goshen, IN 46526

Mr. Denny Lyon
Elkhart County Surveyor's Office
4230 Elkhart Road
Goshen, IN 46526

Mr. Blake Doriot
Elkhart County Surveyor's Office
4230 Elkhart Road
Goshen, IN 46526

Mr. Steve Schweisberger
Elkhart County Surveyor's Office
4230 Elkhart Road
Goshen, IN 46526

Ms. Nancy Brown
Elkhart County SWCD
17746-B C.R. 34
Goshen, IN 46528

Ms. Bev Stevenson
Elkhart County SWCD
17746-B C.R. 34
Goshen, IN 46528

Mr. Donald Parker
2101 Grant Street
Elkhart, IN 46514

Mr. Everett Lienhart
22541 Lakeshore Drive
Elkhart, IN 46514

Mr. Scott Robinia
22880 Lakeshore Drive
Elkhart, IN 46514

Mr. Bill West
23170 Heaton Vista
Elkhart, IN 46514

Ms. Bonnie Shanholt
23197 Heaton Vista
Elkhart, IN 46514

Mr. Don West
52352 C.R. 13
Elkhart, IN

Mary Sproull
23173 Heaton Vista
Elkhart, IN 46514

Mr. James Riley
22886 Lake Shore Drive
Elkhart, IN 46514

Mr. and Mrs. Ty Miller
29893 Olin Court
Elkhart, IN 46514

Mr. Ben Russo
25600 County Road 4
Elkhart, IN 46514

Mr. Kyle Hannon
5 Kim Court
Elkhart, IN 46514

Mr. Bob Stone
23019 Lakeshore Drive
Elkhart, IN 46514

**Elkhart County Commissioners
Section 205(j) Watershed Management Plan Grant
Puterbaugh Creek – Heaton Lake
Watershed Steering Committee Meeting
October 6, 2005**

Mr. Dave Simmons
22892 Lakeshore Drive
Elkhart, IN 46514-9571

Mr. John Hardy
54507 David Drive
Elkhart, IN 46514

Mr. and Ms. Tom Davis
52860 County Road 15
Elkhart, IN 46514

Mr. Nathan Rice, Grant Project Manager
Indiana Dept. of Environ. Mgmt.
Watershed Managment Section
100 North Senate Avenue
Indianapolis, IN 46204

Mr. Maynard Good
23257 County Road 18
Goshen, IN 46528

Mr. and Mrs. Shawn Nicodemus
2600 Broadmoor Drive
Elkhart, IN 46514


Mr. Eric Kurtz
Elkhart County SWCD
17746-B C.R. 34
Goshen, IN 46528



MEMORANDUM

October 27, 2005

TO: LFA Project File 200406.00

FROM: Christopher J. Jeter, P.E. 

RE: Elkhart County Commissioners
Section 205(j) Watershed Planning Grant
Puterbaugh Creek – Heaton Lake Watershed Management Plan
Stakeholder Meeting No. 6
Public Meeting No. 7

The sixth stakeholder meeting for the above referenced project was conducted at Eastwood Elementary School on October 6, 2005. This meeting was the seventh in a series of eight (8) public meetings being conducted for the project. Copies of the agenda, sign-in sheet and handouts are included with this memorandum.

The meeting began with an introduction and brief overview of the watershed planning project by Mr. Chris Jeter. Mr. Jeter provided an overview of the following two (2) previous stakeholder meeting items:

- Watershed Management Plan Goals and Decisions
- Water Quality Sampling conducted by Lawson-Fisher Associates P.C. (LFA) at the C.R. 17 Bog

The overview of the previous meeting's issues consisted of reviewing the Goals and Decisions for the Plan along with presenting a timetable for the Plan's goals to be implemented. In addition, the results of the groundwater quality sampling that was conducted by LFA from March 2001 to March 2003 at the C.R. 17 bog was presented to the Stakeholders.

After completing the overview and project updates, the stakeholders were given an opportunity to ask questions and/or provide comments on the 205(j) project. The following items were discussed:

- A few of the attendees recommended that Goal 4 – Evaluate means to plan, finance, construct, operate, and maintain public wastewater systems – be modified to include developing a partnership between Elkhart County and the Regional Sewer District. The Regional Sewer District was involved in bring sewer to the area surrounding Heaton Lake. In addition, it was suggested that a priority area be identified that would be a candidate to receive sanitary sewer service.
- A few of the attendees discussed the proposed development near C.R. 4 and C.R. 17. This development will include sanitary sewer and water service.



LFA Project File 200406.00

October 27, 2005

Page 2

- Mr. Jeter discussed a recent magazine article that mentioned St. Joseph County, Indiana's policy with respect to septic tank inspections prior to the sale of a home. The inspector is required to open a septic tank, flush 20 gallons of water through the system and check for problems. This allows for full disclosure to the potential buyer and the inspection is then filed with the County Health Department. One of the attendees mentioned that Elkhart County is considering trying to pass a County ordinance that would only allow a septic system to be installed on property that meets minimum acreage requirements.
- One of the attendees indicated that the water table is approximately 7-feet beneath the ground during the spring around Heaton Lake. This attendee also indicated that the water table is approximately 2-feet near the Indiana/Michigan State Line.
- An attendee informed the group that the top of Heaton Lake Dam is at the same elevation as the invert of the culvert under C.R. 15.
- One of the attendees mentioned that a report was prepared for the IDNR in the 1980's regarding the water quality for approximately 80 lakes throughout the State of Indiana. This report listed Heaton Lake as one of the lakes exhibiting good water quality characteristics.
- An attendee mentioned that any groundwater wells that are drilled on the north side of Heaton Lake should not be any deeper than 25-feet below the ground surface. Any wells that are drilled deeper would encounter a vein of groundwater that is high in concentrations of sulphur and iron.
- The final Stakeholder Meeting will be conducted on November 16, 2005 at 6:00 p.m. at Eastwood Elementary School. The Watershed Management Plan will be presented at this meeting to the stakeholders prior to the submittal of the plan to IDEM. Prior to this meeting, LFA personnel will be presenting the goals of the plan to the Elkhart County Commissioners at their Board Meeting on October 31, 2005.

CJJ/cas
Encls.

**ELKHART COUNTY COMMISSIONERS
SECTION 205(j) WATERSHED MANAGEMENT PLAN GRANT
PUTERBAUGH CREEK – HEATON LAKE WATERSHED**

Joint Stakeholder Committee Meeting

October 6, 2005 – 6:00 P.M.

SIGN-IN

[illegible]



**Elkhart County Commissioners
205(j) Watershed Planning Grant
Puterbaugh Creek – Heaton Lake Watershed Management Plan**

Joint Stakeholder Committee Meeting

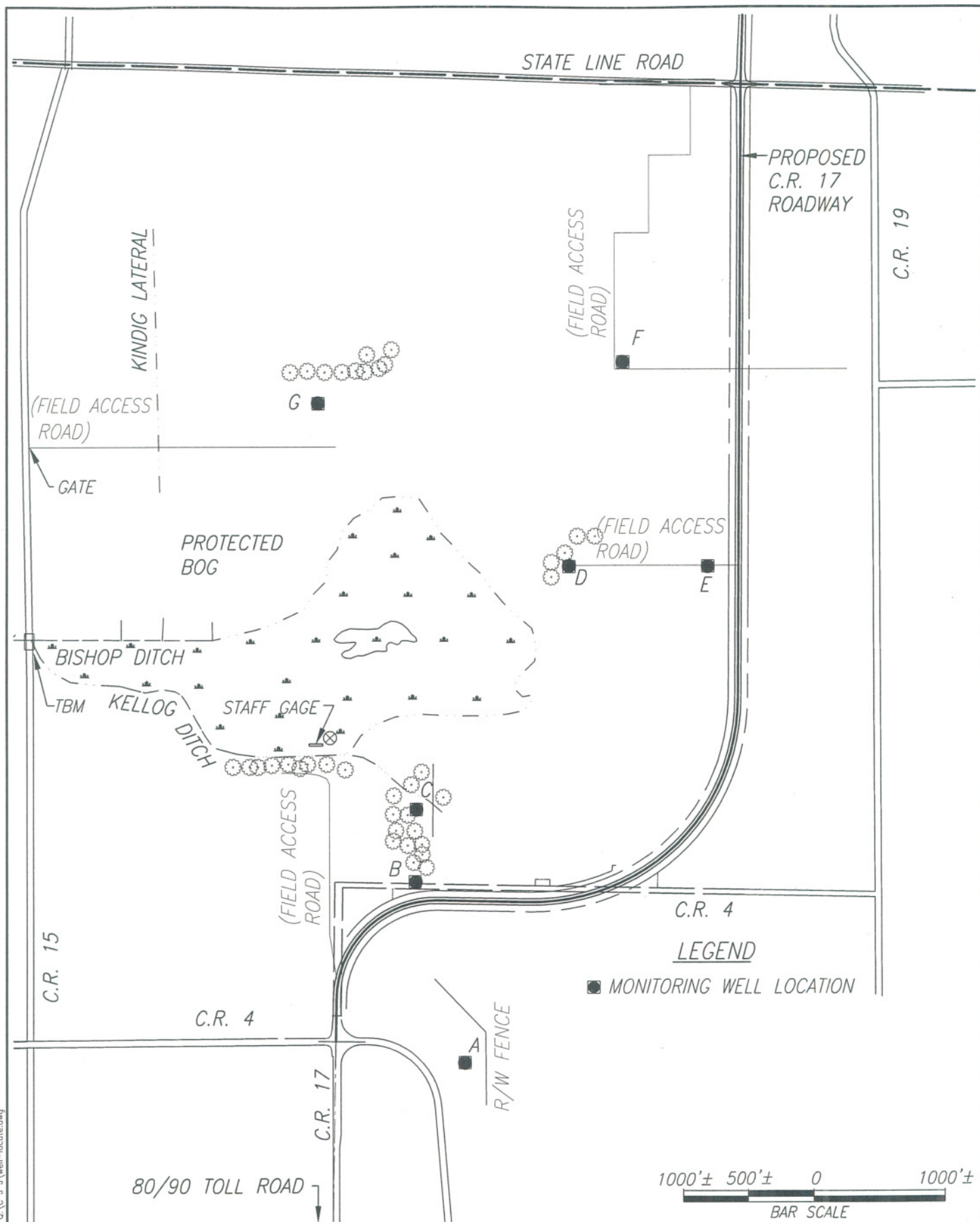
October 6, 2005 at 6:00 P.M.

Agenda

1. Welcome and Introduction
2. Previous Stakeholder Meeting Issues
 - *Goals and Decisions*
 - *Lawson-Fisher Associates P.C. Water Quality Sampling at C.R. 17 Bog*
3. Puterbaugh Creek – Heaton Lake Watershed Management Plan Project
 - *Watershed Management Plan Submittal*
 - *Schedule*
4. Conclusion
5. Discussion
6. Future Meetings

Table 13
Calendar of Events and Project Milestones

<i>Event or Project Milestone</i>	<i>Date/Timeframe</i>	<i>Activity</i>
Milestone	January 1, 2004	ECC 205(j) Grant Project Begins
Event	March 11, 2004	Puterbaugh Creek – Heaton Lake Watershed, 1 st Public Meeting
Event	June 7-8, 2004	INDOT Stream Restoration Training Workshop
Event	June 16, 2004	Joint Steering Committee Meeting (Public Meeting)
Event	September 15, 2004	Getting in Step: Engaging and Involving Stakeholders in Your Watershed Seminar
Event	September 29, 2004	Joint Steering Committee Meeting (Public Meeting)
Event	December 15, 2004	Joint Steering Committee Meeting (Public Meeting)
Event	March 24, 2005	Joint Steering Committee Meeting (Public Meeting)
Event	June 23-24, 2005	Urban Watershed Management BMPs Seminar
Event	June 30, 2005	Joint Steering Committee Meeting (Public Meeting)
Event	January 1, 2006	ECC 205(j) Grant Project Ends
Milestone	January, 2006 – January, 2007	Identify Watershed Coordinator. (Goal 11)
Milestone	January, 2006 – January, 2007	Identify Source(s) of Rhineheart Lateral Contamination. (Goal 1)
Milestone	January, 2006 – January, 2007	Identify Source(s) of Mather Ditch Contamination. (Goal 2)
Milestone	January, 2006 – January, 2007	Identify Source(s) of Kindig/Kellog Ditch and Bishop Ditch Contamination. (Goal 3)
Milestone	January, 2006 – January, 2007	Review existing ordinances, policies and land use plans. (Goal 6)
Milestone	January, 2006 – January, 2008	Evaluate means to plan, finance, construct, operate and maintain public wastewater systems. (Goal 4)
Milestone	January, 2006 – January, 2008	Review County Subdivision and Roadway Standards. Incorporate (if necessary) appropriate BMPs for construction and post construction conditions. (Goal 10)
Milestone	January, 2006 – January, 2009	Encourage science program through local school system. (Goal 9)
Milestone	January, 2006 – January, 2009	Recruit an individual or group to participate in Hoosier River Watch Program. (Goal 9)
Milestone	January, 2007 – January, 2009	Eliminate source(s) of Rhineheart Lateral Contamination. (Goal 1)
Milestone	January, 2007 – January, 2009	Eliminate source(s) of Mather Ditch Contamination. (Goal 2)
Milestone	January, 2007 – January, 2009	Eliminate source(s) of Kindig/Kellog Ditch and Bishop Ditch Contamination. (Goal 3)
Milestone	January, 2006 – January, 2011	Perform sanitary survey of Puterbaugh Creek and its tributaries. (Goal 5)
Milestone	January, 2006 – January, 2011	Use the Puterbaugh Creek – Heaton Lake Watershed Management Plan as a template for other watersheds. (Goal 7)
Milestone	January, 2006 – January, 2011	Increase conservation tillage practices by 5% within the watershed. (Goal 10)
Milestone	January, 2006 – January, 2011	Construct 5 acres of filter strips within the watershed. (Goal 10)



slr - Oct 04, 2005 - 1:26pm Q:\C J J\well-locate.dwg



LAWSON-FISHER
ASSOCIATES P.C.
CONSULTING ENGINEERS

525 W. WASHINGTON AVE.
SOUTH BEND, INDIANA 46601
PH. (574) 234-3167



ELKHART COUNTY, INDIANA
C.R. 17 EXTENSION
GROUNDWATER MONITORING
WELL LOCATION MAP

FIG.
1

Table 3
County Road 17 Groundwater Monitoring Well
Analytical Testing Results
March 22, 2001

Water Quality Parameters (mg/L)	Test Method*	MW-A	MW-B	MW-C	MW-D	MW-E	MW-F	MW-G	Typical GW Concentrations (mg/L)**	IN WQS (mg/L)	IN GWQS (mg/L)
Acidity (as CaCO ₃)	2310B	ND	ND	ND	ND	ND	ND	ND	NL	NL	NL
Alkalinity (as CaCO ₃), Bicarbonate	2320B	64	26	36	100	84	64	29	556	NL	NL
Alkalintiy (as CaCO ₃), Total	2320B	100	42	58	190	140	100	48	NL	NL	NL
Bromide	EPA300	0.01	ND	ND	ND	ND	ND	0.02	NL	NL	NL
Calcuim	EPA200.7	36.0	24.4	28.2	59.8	42.9	36	33.4	92	NL	NL
Chloride	4500-Cl E	6.5	6.9	3.4	2.2	4.5	3.1	44	9.6	230	250
Dissolved Oxygen	4500-O G	7.8	7.3	8.2	7.88	8.02	4.42	7.92	NL	NL	NL
Iodide	4500-I C	ND	ND	ND	ND	ND	ND	ND	NL	NL	NL
Magnesium	EPA200.7	9.12	3.29	3.45	14.0	11.0	7.05	7.05	34	NL	NL
Nitrogen (Nitrate + Nitrite)	4500-NO ₃	1.6	0.17	0.17	0.55	ND	2.6	0.22	2.7	10	NL
pH (field)	EPA150.1	8.3	8.8	8.2	8.0	8.1	8.1	8.1	NL	NL	NL
Potassium	EPA258.1	0.67	0.23	0.29	0.77	0.81	0.7	1.1	1.4	NL	NL
Sodium	EPA200.7	1.7	1.9	1.3	3.2	1.4	3.1	4.0	8.2	NL	NL
Total Dissolved Solids	2540C	164	80	108	228	180	186	172	434	NL	500
Specific Conductance (field)	2510B	260	120	130	340	280	240	230	NL	NL	NL
Sulfate	4500-SO ₄	27	15	16	34	28	25	24	84	NL	250
Surfactants (MBAS)	5540C	ND	ND	ND	ND	ND	ND	ND	NL	NL	NL
Temperature (field)	EPA170.1	7.6	7.2	7.3	8.4	9.1	6.8	7.7	NL	NL	NL
Turbidity	2130B	21	48	74	10	11	13	28	NL	NL	NL

Notes:

*Test Method number listed is a Standard Method, unless preceeded by EPA which indicates an Environmental Protection Agency test method.

**Source: Snoeyink, V. and D. Jenkins. *Water Chemistry*. John Wiley & Sons, Inc., New York, 1980. Typical Analyses of Groundwater, Dayton, OH.

EPA DWS: Environmental Protection Agency National Primary Drinking Water Standards

IN WQS: State of Indiana Water Quality Standards for surface water

IN GWQS: State of Indiana Groundwater Quality Standards (Adopted August 8, 2001)

ND: Parameter not detected above laboratory detection limits for the specific test method.

NL: Parameter not listed in the referenced source.

Table 4
County Road 17 Groundwater Monitoring Well
Analytical Testing Results
September 7, 2001

Water Quality Parameters (mg/L)	Test Method*	MW-A	MW-B	MW-C	MW-D	MW-E	MW-F	MW-G	Typical GW Concentrations (mg/L)**	IN WQS (mg/L)	IN GWQS (mg/L)
Acidity (as CaCO ₃)	2310B	ND	ND	ND	ND	ND	ND	ND	NL	NL	NL
Alkalinity (as CaCO ₃), Bicarbonate	2320B	44	88	60	94	66	60	28	556	NL	NL
Alkalintiy (as CaCO ₃), Total	2320B	72	140	98	150	110	98	46	NL	NL	NL
Bromide	EPA300	ND	ND	ND	ND	ND	ND	0.02	NL	NL	NL
Calcuim	EPA200.7	26.3	43.8	30.8	55.0	32.1	37.5	25.5	92	NL	NL
Chloride	4500-Cl E	7.5	4.0	3.7	3.2	1.1	4.9	8.6	9.6	230	250
Dissolved Oxygen	4500-O G	8.1	3.7	3.3	9.5	9.6	5.3	5.0	NL	NL	NL
Iodide	4500-I C	0.010	ND	ND	ND	0.010	0.011	0.010	NL	NL	NL
Magnesium	EPA200.7	5.89	10.9	7.3	13.2	7.5	8.53	6.5	34	NL	NL
Nitrogen (Nitrate + Nitrite)	4500-NO ₃	2.1	ND	ND	0.2	0.13	2.9	0.2	2.7	10	NL
pH (field)	EPA150.1	8.2	7.7	7.6	7.8	8.0	8.0	7.6	NL	NL	NL
Potassium	EPA258.1	0.7	0.46	0.42	0.9	0.9	0.68	1.92	1.4	NL	NL
Sodium	EPA200.7	1.5	1.7	1.3	3.4	1.0	2.6	3.2	8.2	NL	NL
Total Dissolved Solids	2540C	140	190	150	220	120	190	140	434	NL	500
Specific Conductance (field)	2510B	160	250	180	290	170	210	150	NL	NL	NL
Sulfate	4500-SO ₄	5	16	26	32	8.3	24	28	84	NL	250
Surfactants (MBAS)	5540C	ND	ND	ND	ND	ND	ND	ND	NL	NL	NL
Temperature (field)	EPA170.1	14.3	13.9	13.8	14.5	13.6	15.3	16.1	NL	NL	NL
Turbidity	2130B	3.1	3.6	12	3.5	6	5.6	7.9	NL	NL	NL

Notes:

*Test Method number listed is a Standard Method, unless preceeded by EPA which indicates an Environmental Protection Agency test method.

**Source: Snoeyink, V. and D. Jenkins. *Water Chemistry*. John Wiley & Sons, Inc., New York, 1980. Typical Analyses of Groundwater, Dayton, OH.

IN WQS: State of Indiana Water Quality Standards for surface water

IN GWQS: State of Indiana Groundwater Quality Standards (Adopted August 8, 2001)

ND: Parameter not detected above laboratory detection limits for the specific test method.

NL: Parameter not listed in the referenced source.

Table 5
County Road 17 Groundwater Monitoring Well
Analytical Testing Results
March 14, 2002

Water Quality Parameters (mg/L)	Test Method*	MW-A	MW-B	MW-C	MW-D	MW-E	MW-F	MW-G	Typical GW Concentrations (mg/L)**	IN WQS (mg/L)	IN GWQS (mg/L)
Acidity (as CaCO ₃)	2310B	ND	ND	ND	ND	ND	ND	ND	NL	NL	NL
Alkalinity (as CaCO ₃), Bicarbonate	2320B	70	220	41	120	110	60	28	556	NL	NL
Alkalintiy (as CaCO ₃), Total	2320B	110	370	67	200	180	98	46	NL	NL	NL
Bromide	EPA300	0.01	ND	ND	ND	ND	ND	0.01	NL	NL	NL
Calcuim	EPA200.7	197.0	25.3	34.6	66	85.7	82.3	19.4	92	NL	NL
Chloride	4500-Cl E	8.1	ND	ND	3.1	2.6	4.7	8.1	9.6	230	250
Dissolved Oxygen	4500-O G	7.52	6.84	8.17	9.38	7.13	7.06	7.65	NL	NL	NL
Iodide	4500-I C	ND	ND	ND	ND	ND	ND	ND	NL	NL	NL
Magnesium	EPA200.7	96.5	3.97	4.31	18.3	27.3	31.9	4.4	34	NL	NL
Nitrogen (Nitrate + Nitrite)	4500-NO ₃	1.4	ND	ND	0.36	ND	2.3	ND	2.7	10	NL
pH (field)	EPA150.1	8.16	8.71	8.03	7.9	7.86	8.27	7.72	NL	NL	NL
Potassium	EPA258.1	1.11	0.24	0.27	0.9	1.18	0.98	0.5	1.4	NL	NL
Sodium	EPA200.7	3.8	8.8	4.1	5.3	1.1	4.6	4.7	8.2	NL	NL
Total Dissolved Solids	2540C	200	110	120	270	220	200	120	434	NL	500
Specific Conductance (field)	2510B	270	150	140	430	350	250	160	NL	NL	NL
Sulfate	4500-SO ₄	16	17	13	28	13	34	31	84	NL	250
Surfactants (MBAS)	5540C	ND	ND	ND	ND	ND	ND	ND	NL	NL	NL
Temperature (field)	EPA170.1	8.1	7.9	7.9	8.4	7.13	7.3	7.7	NL	NL	NL
Turbidity	2130B	568	66	81	71	425	510	51	NL	NL	NL

Notes:

*Test Method number listed is a Standard Method, unless preceeded by EPA which indicates an Environmental Protection Agency test method.

**Source: Snoeyink, V. and D. Jenkins. *Water Chemistry*. John Wiley & Sons, Inc., New York, 1980. Typical Analyses of Groundwater, Dayton, OH.

EPA DWS: Environmental Protection Agency National Primary Drinking Water Standards

IN WQS: State of Indiana Water Quality Standards for surface water

IN GWQS: State of Indiana Groundwater Quality Standards (Adopted August 8, 2001)

ND: Parameter not detected above laboratory detection limits for the specific test method.

NL: Parameter not listed in the referenced source.

Table 6
County Road 17 Groundwater Monitoring Well
Analytical Testing Results
October 29, 2002 and October 31, 2002

Water Quality Parameters (mg/L)	Test Method*	MW-A	MW-B	MW-C	MW-D	MW-E	MW-F	MW-G	Typical GW Concentrations (mg/L)**	IN WQS (mg/L)	IN GWQS (mg/L)
Acidity (as CaCO ₃)	2310B	ND	ND	ND	ND	ND	ND	ND	NL	NL	NL
Alkalinity (as CaCO ₃), Bicarbonate	2320B	48	80	52	100	90	55	31	556	NL	NL
Alkalinity (as CaCO ₃), Total	2320B	80	130	85	160	150	91	51	NL	NL	NL
Bromide	EPA300	ND	ND	ND	ND	ND	0.01	0.04	NL	NL	NL
Calcium	EPA200.7	29.3	39.2	28.2	56.8	47.6	37.9	27.8	92	NL	NL
Chloride	4500-Cl E	2.1	3.2	2	3	1.3	6.5	8.7	9.6	230	250
Dissolved Oxygen	4500-O G	7.6	5.63	2.3	7.59	5.53	5.07	6.5	NL	NL	NL
Iodide	4500-I C	ND	ND	ND	ND	ND	ND	ND	NL	NL	NL
Magnesium	EPA200.7	6.4	12.2	8.8	15.1	11.2	8.6	9.21	34	NL	NL
Nitrogen (Nitrate + Nitrite)	4500-NO ₃	1.6	ND	ND	0.14	0.13	3.3	0.53	2.7	10	NL
pH (field)	EPA150.1	8.42	7.9	8.16	7.9	7.92	8.03	7.82	NL	NL	NL
Potassium	EPA258.1	0.54	0.44	0.34	1.02	0.96	1.09	2.24	1.4	NL	NL
Sodium	EPA200.7	1.6	1.4	1.8	4.4	1.5	2.2	4.2	8.2	NL	NL
Total Dissolved Solids	2540C	120	160	120	220	160	160	180	434	NL	500
Specific Conductance (field)	2510B								NL	NL	NL
Sulfate	4500-SO ₄	10	10	24	17	29	19	9.2	84	NL	250
Surfactants (MBAS)	5540C	0.35	ND	ND	ND	ND	ND	ND	NL	NL	NL
Temperature (field)	EPA170.1	11.6	11.1	10.3	13.6	12.67	11.7	10.47	NL	NL	NL
Turbidity	2130B	6.4	1.4	5.1	24	15	6.1	170	NL	NL	NL

Notes:

*Test Method number listed is a Standard Method, unless preceded by EPA which indicates an Environmental Protection Agency test method.

**Source: Snoeyink, V. and D. Jenkins. *Water Chemistry*. John Wiley & Sons, Inc., New York, 1980. Typical Analyses of Groundwater, Dayton, OH.

EPA DWS: Environmental Protection Agency National Primary Drinking Water Standards

IN WQS: State of Indiana Water Quality Standards for surface water

IN GWQS: State of Indiana Groundwater Quality Standards (Adopted August 8, 2001)

ND: Parameter not detected above laboratory detection limits for the specific test method.

NL: Parameter not listed in the referenced source.

Table 7
County Road 17 Groundwater Monitoring Well
Analytical Testing Results
April 3, 2003

Water Quality Parameters (mg/L)	Test Method*	MW-A	MW-B	MW-C	MW-D	MW-E	MW-F	MW-G	Typical GW Concentrations (mg/L)**	IN WQS (mg/L)	IN GWQS (mg/L)
Acidity (as CaCO ₃)	2310B	ND	ND	ND	ND	ND	ND	ND	NL	NL	NL
Alkalinity (as CaCO ₃), Bicarbonate	2320B	59	87	90	83	83	55	35	556	NL	NL
Alkalinity (as CaCO ₃), Total	2320B	96	140	150	140	140	91	57	NL	NL	NL
Bromide	EPA300	ND	ND	0.02	ND	ND	0.01	0.04	NL	NL	NL
Calcium	EPA200.7	36.0	42.9	42.9	44.5	45.3	37.3	28.9	92	NL	NL
Chloride	4500-Cl E	3.2	4.2	5.1	1.3	1.4	4.4	7.2	9.6	230	250
Dissolved Oxygen	4500-O G	6.17	1.51	2.23	8.48	5	4.15	3.8	NL	NL	NL
Iodide	4500-I C	0.002	0.001	0.001	ND	0.002	0.001	0.002	NL	NL	NL
Magnesium	EPA200.7	8.29	14.5	17.5	10.8	10.6	9.1	6.64	34	NL	NL
Nitrogen (Nitrate + Nitrite)	4500-NO ₃	1.2	ND	ND	0.38	0.23	2.7	0.72	2.7	10	NL
pH (field)	EPA150.1	8.09	7.55	7.56	7.74	7.66	8.04	7	NL	NL	NL
Potassium	EPA258.1	0.48	0.36	0.34	0.70	0.82	0.84	1.80	1.4	NL	NL
Sodium	EPA200.7	1.4	1.1	1.9	2.40	1.10	1.50	4.70	8.2	NL	NL
Total Dissolved Solids	2540C	140	170	200	180	160	150	150	434	NL	500
Specific Conductance (field)	2510B	270	280	260	300	280	260	240	NL	NL	NL
Sulfate	4500-SO ₄	8	16	37	15	ND	16	28	84	NL	250
Surfactants (MBAS)	5540C	0.12	0.1	ND	ND	ND	ND	ND	NL	NL	NL
Temperature (field)	EPA170.1	10	9.4	9.5	9.6	10.5	8.6	9.7	NL	NL	NL
Turbidity	2130B	5.5	1.3	9.2	1.3	21	3.9	6.1	NL	NL	NL

Notes:

*Test Method number listed is a Standard Method, unless preceded by EPA which indicates an Environmental Protection Agency test method.

**Source: Snoeyink, V. and D. Jenkins. *Water Chemistry*. John Wiley & Sons, Inc., New York, 1980. Typical Analyses of Groundwater, Dayton, OH.

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November 16, 2005
Public Meeting

Press Release

Elkhart County Commissioners Puterbaugh Creek - Heaton Lake
Watershed Management Plan

Elkhart County Commissioners have received a \$60,000 Federal Fiscal Year 2002 205(j) Water Quality Planning Grant from the US Environmental Protection Agency for the development of a Watershed Management Plan for the Puterbaugh Creek - Heaton Lake Watershed. The Puterbaugh Creek - Heaton Lake Watershed encompasses an area of approximately 17 square miles. Its northern boundary extends into the State of Michigan and south to include the Heaton Lake and Puterbaugh Creek. This watershed study area encompasses nearly all of Osolo Township and the western portion of Washington Township.

A Joint Stakeholder Meeting is scheduled for 6:00 PM on Wednesday, November 16, 2005 at Eastwood Elementary School located at 53215 CR 15 North, Elkhart, Indiana. The purpose of the meeting is to inform the public and solicit comments about the Watershed Management Plan Project prior to the final submittal of the Plan to the Indiana Department of Environmental Management.

Questions concerning this meeting should be directed to Mr. Christopher J. Jeter at Lawson-Fisher Associates (574) 234-3167 or Ms. Kristine Krueger at the Elkhart County Commissioners Office (574) 535-6746.



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DANIEL R. LAWSON, P.E.
JOHN E. FISHER, P.E.

GREGORY L. HOLDEN, P.E.
PAUL A. HUMMEL, P.E.

200406.00

JOHN A. MIDDLETON, P.E.
PIPER C. TITTLE, P.E.
THOMAS S. SHARP, P.E.
THERESA E. HARRISON, P.E.
JON E. RIEMKE, P.E.
JEFFREY L. MCKEAN, P.E.
RANDOLPH J. LINDLEY, P.E.
SKY K. MEDORS, P.E.
→ CHRISTOPHER J. JETER, P.E.
DENNIS A. ZEBELL, P.E.
BENJAMIN P. HOLDEN, P.E.
DAN G. DELGADO, P.E.
MARK H. FOSTER, P.E.
CHARLES F. FARRELL, P.E.
MICHAEL J. GUZIK, P.E.
MICHAEL F. JOHNSTON, P.E.

November 7, 2005

Ms. Nancy Brown, Program Manager
Elkhart County SWCD
17746-B C.R. 34
Goshen, IN 46528

RE: Elkhart County Commissioners
Section 205(j) Watershed Management Plan Grant
Puterbaugh Creek – Heaton Lake Watershed
Watershed Steering Committee Meeting

Dear Ms. Brown:

The following letter is to inform you that a Watershed Steering Committee Meeting is scheduled for the above referenced project. The meeting is scheduled for 6:00 P.M. on Wednesday, November 16, 2005, at Eastwood Elementary School located at 53215 County Road 15 North, Elkhart, Indiana. The purpose of the meeting is to inform the public about the Watershed Management Plan Project and invite participation in the Watershed Planning process.

Please do not hesitate to contact us should you have any questions or comments.

Very truly yours,

LAWSON-FISHER ASSOCIATES P.C.

Christopher J. Jeter, P.E.
Civil Engineer

CJJ/bsa

c: Kristine Krueger
John E. Fisher, P.E.
Piper C. Tittle, P.E.

**Elkhart County Commissioners
Section 205(j) Watershed Management Plan Grant
Puterbaugh Creek – Heaton Lake
Watershed Steering Committee Meeting
November 16, 2005**

Ms. Kristine Krueger
Elkhart County Government
117 North Second Street
Goshen, IN 46526

Mr. Robert Watkins
Elkhart County Health Department
4230 Elkhart Road
Goshen, IN 46526

Mr. John Hulewicz
Elkhart County Health Department
4230 Elkhart Road
Goshen, IN 46526

Mr. Denny Lyon
Elkhart County Surveyor's Office
4230 Elkhart Road
Goshen, IN 46526

Mr. Blake Doriot
Elkhart County Surveyor's Office
4230 Elkhart Road
Goshen, IN 46526

Mr. Steve Schweisberger
Elkhart County Surveyor's Office
4230 Elkhart Road
Goshen, IN 46526

Ms. Nancy Brown
Elkhart County SWCD
17746-B C.R. 34
Goshen, IN 46528

Ms. Bev Stevenson
Elkhart County SWCD
17746-B C.R. 34
Goshen, IN 46528

Mr. Donald Parker
2101 Grant Street
Elkhart, IN 46514

Mr. Everett Lienhart
22541 Lakeshore Drive
Elkhart, IN 46514

Mr. Scott Robinia
22880 Lakeshore Drive
Elkhart, IN 46514

Mr. Bill West
23170 Heaton Vista
Elkhart, IN 46514

Ms. Bonnie Shanholt
23197 Heaton Vista
Elkhart, IN 46514

Mr. Don West
52352 C.R. 13
Elkhart, IN 46514

Mary Sproull
23173 Heaton Vista
Elkhart, IN 46514

Mr. James Riley
22886 Lake Shore Drive
Elkhart, IN 46514

Mr. and Mrs. Ty Miller
29893 Olin Court
Elkhart, IN 46514

Mr. Ben Russo
25600 County Road 4
Elkhart, IN 46514

Mr. Kyle Hannon
5 Kim Court
Elkhart, IN 46514

Mr. Bob Stone
23019 Lakeshore Drive
Elkhart, IN 46514

**Elkhart County Commissioners
Section 205(j) Watershed Management Plan Grant
Puterbaugh Creek – Heaton Lake
Watershed Steering Committee Meeting
November 16, 2005**

Mr. Dave Simmons
22892 Lakeshore Drive
Elkhart, IN 46514-9571

Mr. John Hardy
54507 David Drive
Elkhart, IN 46514

Mr. and Ms. Tom Davis
52860 County Road 15
Elkhart, IN 46514

Mr. Nathan Rice, Grant Project Manager
Indiana Dept. of Environ. Mgmt.
Watershed Managment Section
100 North Senate Avenue
Indianapolis, IN 46204

Mr. Maynard Good
23257 County Road 18
Goshen, IN 46528

Mr. and Mrs. Shawn Nicodemus
2600 Broadmoor Drive
Elkhart, IN 46514

Mr. Eric Kurtz
Elkhart County SWCD
17746-B C.R. 34
Goshen, IN 46528



MEMORANDUM

November 17, 2005

TO: LFA Project File 200406.00

FROM: Christopher J. Jeter, P.E. CJJ

RE: Elkhart County Commissioners
Section 205(j) Watershed Planning Grant
Puterbaugh Creek – Heaton Lake Watershed Management Plan
Stakeholder Meeting No. 7
Public Meeting No. 8

The seventh Stakeholder Meeting for the above referenced project was conducted at Eastwood Elementary School on November 16, 2005. This meeting was the eighth in a series of eight (8) public meetings being conducted for the project. Copies of the agenda, sign-in sheet and handouts are included with this memorandum.

The meeting began with an introduction and a brief overview of the Watershed Planning Project by Mr. Chris Jeter. The overview included a presentation of the Goals of the Watershed Management Plan and Mr. Jeter solicited additional input from the stakeholders. Mr. Jeter indicated that the project Goals and Action Items had been reviewed with the Elkhart County Commissioners on October 31, 2005. In addition, Mr. Jeter indicated that he forwarded a list of the Goals and Action Items to Mr. Duane Burrow, Stormwater Manager for the Greater Elkhart County MS4.

After completing the overview and project updates, the following items were discussed:

- A few of the attendees suggested that the Goals and Action Items be prioritized. Table 13 of the Watershed Management Plan outlines the timeframe over which the project goals could occur.
- Mr. Dave Simmons suggested that public education and outreach be listed as the first goal of the Watershed Management Plan. This outreach could consist of the distribution of education fliers and public meetings.
- Mr. Dave Simmons also indicated that it would be preferable that the watershed coordinator live in the Puterbaugh Creek – Heaton Lake Watershed.
- A few of the attendees were concerned with the current lake levels in Heaton Lake. Mr. Jeter discussed the fact that Northern Indiana is currently in a drought and this is a major factor in the lake levels being lower throughout the area.
- Mr. Dave Simmons suggested that Elkhart County continue performing water quality sampling activities at the six (6) locations that were sampled for this Watershed Management Plan. A monitoring strategy will be outlined in the final report.
- Mr. Nathan Rice from IDEM explained to the stakeholders that Indiana Lake Management Grant Funds are available for water quality education.
- Mr. Everett Lienhart discussed the 1,400 acre area that is north of C.R. 4 and east of C.R. 15 that is scheduled to be developed as an industrial area. His concern is the runoff of pollutants to the protected bog to the west of C.R. 17 and those pollutants eventually migrating to Heaton Lake.
- This meeting was the final meeting to be conducted for the Puterbaugh Creek – Heaton Lake Watershed Management Plan.

CJJ/cas
Encls.

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November 16, 2005 – 6:00 P.M.

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***Elkhart County Commissioners
Section 205(j) Watershed Planning Grant
Puterbaugh Creek – Heaton Lake Watershed Management Plan***

Joint Stakeholder Committee Meeting

November 16, 2005 at 6:00 P.M.

Agenda

1. Welcome and Introduction
2. Previous Stakeholder Meeting Issues
 - *Goals and Decisions*
 - *Presentation to County Commissioners*
3. Puterbaugh Creek – Heaton Lake Watershed Management Plan Project
 - *Watershed Management Plan*
 - *Schedule*
4. Conclusion
5. Discussion

Table 13
Calendar of Events and Project Milestones

<i>Event or Project Milestone</i>	<i>Date/Timeframe</i>	<i>Activity</i>
Milestone	January 1, 2004	ECC 205(j) Grant Project Begins
Event	March 11, 2004	Puterbaugh Creek – Heaton Lake Watershed, 1 st Public Meeting
Event	June 7-8, 2004	INDOT Stream Restoration Training Workshop
Event	June 16, 2004	Joint Steering Committee Meeting (Public Meeting)
Event	September 15, 2004	Getting in Step: Engaging and Involving Stakeholders in Your Watershed Seminar
Event	September 29, 2004	Joint Steering Committee Meeting (Public Meeting)
Event	December 15, 2004	Joint Steering Committee Meeting (Public Meeting)
Event	March 24, 2005	Joint Steering Committee Meeting (Public Meeting)
Event	June 23-24, 2005	Urban Watershed Management BMPs Seminar
Event	June 30, 2005	Joint Steering Committee Meeting (Public Meeting)
Event	January 1, 2006	ECC 205(j) Grant Project Ends
Milestone	January, 2006 – January, 2007	Identify Watershed Coordinator. (Goal 11)
Milestone	January, 2006 – January, 2007	Identify Source(s) of Rhineheart Lateral Contamination. (Goal 1)
Milestone	January, 2006 – January, 2007	Identify Source(s) of Mather Ditch Contamination. (Goal 2)
Milestone	January, 2006 – January, 2007	Identify Source(s) of Kindig/Kellog Ditch and Bishop Ditch Contamination. (Goal 3)
Milestone	January, 2006 – January, 2007	Review existing ordinances, policies and land use plans. (Goal 6)
Milestone	January, 2006 – January, 2008	Evaluate means to plan, finance, construct, operate and maintain public wastewater systems. (Goal 4)
Milestone	January, 2006 – January, 2008	Review County Subdivision and Roadway Standards. Incorporate (if necessary) appropriate BMPs for construction and post construction conditions. (Goal 10)
Milestone	January, 2006 – January, 2009	Encourage science program through local school system. (Goal 9)
Milestone	January, 2006 – January, 2009	Recruit an individual or group to participate in Hoosier River Watch Program. (Goal 9)
Milestone	January, 2007 – January, 2009	Eliminate source(s) of Rhineheart Lateral Contamination. (Goal 1)
Milestone	January, 2007 – January, 2009	Eliminate source(s) of Mather Ditch Contamination. (Goal 2)
Milestone	January, 2007 – January, 2009	Eliminate source(s) of Kindig/Kellog Ditch and Bishop Ditch Contamination. (Goal 3)
Milestone	January, 2006 – January, 2011	Perform sanitary survey of Puterbaugh Creek and its tributaries. (Goal 5)
Milestone	January, 2006 – January, 2011	Use the Puterbaugh Creek – Heaton Lake Watershed Management Plan as a template for other watersheds. (Goal 7)
Milestone	January, 2006 – January, 2011	Increase conservation tillage practices by 5% within the watershed. (Goal 10)
Milestone	January, 2006 – January, 2011	Construct 5 acres of filter strips within the watershed. (Goal 10)

Table 12
Puterbaugh Creek – Heaton Lake Watershed Management Plan
Goals and Action Items

GOALS	ACTION ITEMS	RESPONSIBILITY	TIMEFRAME
Goal #1: Reduce E. coli, Nitrates, and Total Suspended Solids (TSS) in Rhineheart Lateral	Identify the specific source(s) of waste: Conduct a systematic dye testing program of adjacent homes and farm field tiles	ECHD, Cass County Health Department (CCHD)	1-Year
	Eliminate source(s) of waste: Once the contamination source(s) are identified, the ECHD and the Cass County Health Department will need to work together to rectify the situation.	ECHD, CCHD, Property Owner	1-2 Years
Goal #2: Reduce Surfactants and Suspected Septic Contamination in Mather Ditch	Identify specific source(s) of waste: Conduct a systematic dye testing program of adjacent homes.	ECHD	1-Year
	Eliminate source(s) of waste: Once the failing system(s) are identified, the ECHD will work with the property owner to rectify the situation.	ECHD, Property Owner	1-2 Years
Goal #3: Increase Dissolved Oxygen (DO) levels in Kindig/Kellog Ditch and Bishop Ditch	Identify the specific source(s) of waste: Determine if organic matter is decomposing in these areas and contributing to the low DO readings	ECHD	1-Year
	Eliminate source(s) of waste: Once the contamination source(s) are identified, the ECHD will work with the property owner to rectify the situation.	ECHD, Property Owner	1-2 Years
Goal #4: Explore methods to plan, construct, operate, maintain, and finance public wastewater systems	Evaluate options with Regional Sewer District. Coordinate with existing public sewer systems (City of Elkhart).	ECC	2-Years
Goal #5: Eliminate direct discharges of septic tank effluent	Continue to monitor E. Coli levels in Puterbaugh Creek and its tributaries and Heaton Lake.	ECHD	Ongoing
	Conduct a sanitary survey of Puterbaugh Creek and its tributaries; perform dye testing once specific areas of septic contamination are identified.	ECHD	5-Years
	Eliminate source(s) of septic waste: Once the contamination source(s) is identified, the ECHD will work with the property owner to rectify the situation.	ECHD	1-2 Years
	Explore funding source(s) to eliminate septic waste	ECHD	Ongoing
Goal #6: Discourage medium to high density development requiring on-site wastewater systems where the soils are not adequate to treat the septic effluent in order to protect the surface waters and groundwater	Review existing ordinances, policies, and land use plans and revise as needed, with respect to existing subdivision and zoning regulations.	Elkhart County EC Planning Dept.	1-Year
	Encourage development to occur in areas where public sewer systems are available.	EC Planning Dept.	Ongoing
Goal #7: Use the Puterbaugh Creek – Heaton Lake Watershed Management Plan as a template to address E. Coli in other Elkhart County watersheds	Continued sampling by ECHD to identify areas of water quality impairment.	ECHD	Ongoing
	Develop watershed management plan(s) for other areas.	ECC/SWCD	5-Years
	Develop a program of sanitary surveys for the entire county. This item may be coordinated with IDEM Rule 13.	ECHD	3-Years
Goal #8: Continue to educate residents of on-site wastewater systems	Distribute educational information at appropriate locations and events.	ECHD, ECC, SWCD	Ongoing
	Continue to educate public through the investigation of failing septic systems.	ECHD	Ongoing
	Develop a web-page addressing non-point source pollution and wet weather issues.	ECHD/SWCD	Ongoing
	Educate public through local media (newspaper, television, and radio).	ECHD/SWCD	Ongoing
Goal #9: Continue an education program on water quality and management practices to reduce contaminants to surface waters	Encourage a science program through the local school systems to address local water quality and watershed issues.	SWCD	3-Years
	Recruit an individual or group (school classroom) to participate in the Hoosier River Watch Program collecting water samples from Puterbaugh Creek, its tributaries, or Heaton Lake.	SWCD, Public	3-Years
	Include water quality issues on web-page.	ECHD/SWCD	3-Years
	Publish articles in the SWCD/NRCS newsletter that is incorporated monthly into local issues of the Farmer's Exchange Newspaper.	SWCD/NRCS EC Extension	Ongoing
	Educate public through the local media (newspaper, television, and radio).	ECHD/SWCD	Ongoing
Goal #10: Develop and implement BMP's to reduce sources of contaminants	BMPs to address agricultural sources of pollution include filter strips, crop management plans, and manure management plans.	ECHD, SWCD, NRCS	Ongoing
	Review County Subdivision and Roadway Standards. Incorporate (if necessary) BMPs to address erosion control for both construction and post construction conditions.	EC Planning Dept. EC Highway Dept.	2-Years
	Include BMPs on web-page.	ECHD/SWCD	3-Years
	Encourage conservation practices to address erosion associated with crops. There are cost sharing programs to assist agricultural producers.	NRCS/SWCD	Ongoing
Goal #11: Identify a watershed coordinator	Identify coordinator.	ECC/SWCD	1 – Year
Goal #12: Continue to work cooperatively with other watershed groups within the St. Joseph River basin	Attend Joint Steering Committee Meetings.	ECC/ECHD, SWCD	Ongoing